

UNIVERSITY FOR DEVELOPMENT STUDIES, TAMALE

**AN ASSESSMENT OF POSTNATAL CARE ON FAMILY PLANNING
ADOPTION IN THE KUMBUNGU DISTRICT OF THE NORTHERN
REGION**

BY

DUMAKAWE DAVID (BSC. COMMUNITY NUTRITION)

(UDS/CHD/0136/13)

**A THESIS SUBMITTED TO THE DEPARTMENT OF COMMUNITY HEALTH,
SCHOOL OF ALLIED HEALTH SCIENCES, UNIVERSITY FOR DEVELOPMENT
STUDIES, IN PARTIAL FULFILMENT OF THE REQUIREMENT FOR THE AWARD
OF MASTER OF SCIENCE IN COMMUNITY HEALTH AND DEVELOPMENT**

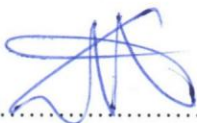
FEBRUARY, 2017



DECLARATION

STUDENT:

"I hereby declare that this thesis is the result of my own original work and that no part of it has been presented for another degree in this university or elsewhere"

Student's Signature:  Date: 28/2/17

DAVID DUMAKAWE

SUPERVISOR:

"I hereby declare that the preparation and presentation of the thesis was supervised in accordance with the guidance on supervision of thesis laid down by the University for Development Studies"

Supervisor's Signature:  Date: 28/2/17

DR. SHAMSU- DEEN ZIBLIM



ABSTRACT

Reproductive Health and Family Planning (FP) services have been of global concern especially in developing countries where fertility rates are high. Postpartum Family planning is recognized as a key life-saving intervention for mothers and their children. The study aimed at assessing postnatal care in promoting family planning among women in the Kumbungu district. In conducting the study a cross – sectional survey that employed both qualitative and quantitative methods was used to collect data among women of reproductive age and health staff in the six selected health facilities of the district. Both open and closed ended questionnaires were used to collect responses from the respondents. In all, 200 women seeking postnatal care were sampled in the six health facilities for the study. The results of the study revealed higher odds of postpartum family planning uptake among respondents with at most primary level education (OR=2.77, 95% CI; 0.35-21.75, $p>0.05$), informal sector occupations (OR=2.28, 95% CI; 0.63-8.22, $p>0.05$) and among those earning less than GHc100 income. This shows that respondents with higher education, gainful employment and high incomes resort to modern family planning. Majority of those without formal education were noted not to be practicing modern contraception. It was also revealed that modern contraceptive use was more likely among respondents who were educated and among those who made 1-2 visits to the post-partum postnatal center relative to those who visited more. The study also revealed that some of the respondents had adequate knowledge on the use of Lactational Amenorrhea as an alternative during post-partum periods. Some of the respondents reported that Lactational Amenorrhea is the best method of Postpartum Family planning. The study concludes that family planning and postnatal issues are not well promise in the district. The study therefore recommended that more education should be given to spouses on family planning decision making and also they should intensify the education on the importance of postnatal care.



ACKNOWLEDGEMENT

After three years of hard work, I now realize that obtaining a master's degree is not just a one person's effort. I would like to publicly acknowledge the contributions and sacrifices from many people who have played a vital role in the completion of this study.

I extend my sincerest appreciation to the almighty God for bringing me this far and for making His favour always available to me.

I feel most privilege to have been intellectually shielded by an irreplaceable scholar to supervise my work. This thesis would not have been completed without the encouragement, support and suggestions and guidelines from my supervisor Dr. Shamsu- Deen Ziblim. To him I say a big thank you.

I also want to thank the department of community health and development for their support most especially Dr. Robert Kuuganab-Lem, Mr. Mustapha Iddrisu, Mr. Boakye Yiadom.

To the members of Kumbungu DHMT especially Sylvester for his support during the data collection and all the facility heads in the selected health facilities where the research was conducted.

To my family for their prayers and support towards my education. To my friends most especially Siddique Gbandha, Abdul MuizzMuktar, Bakuri Sufian, Yelkumo Naeem and all members of Community Health and Development Modular IV.



DEDICATION

To the Dumakawe Family for their enthusiasm in trying to make me a better person.



TABLE OF CONTENTS

DECLARATION	i
ABSTRACT	ii
ACKNOWLEDGEMENT	iii
DEDICATION	iv
TABLE OF CONTENTS	v
LIST OF TABLES	viii
LIST OF FIGURES	ix
ABBREVIATIONS / ACRONYMS	x
CHAPTER ONE	1
INTRODUCTION	1
1.1 Background to the Study	1
1.2 Problem Statement	7
1.3 Main Objective	10
1.3.1 Specific Objectives	10
1.4 Relevance of the Study	10
1.5 Scope of the Study	11
CHAPTER TWO	13
2.0 LITERATURE REVIEW	13
2.1 Introduction	13
2.2 Family Planning	14
2.3 Types of Family Planning Methods	17
2.3.1 Traditional Methods	19
2.3.2 Modern Contraceptive Methods	22
Table 2.3.2 Modern Contraceptive Methods	22
2.5 Socio-Economic Factors	26
2.6 Socio-Demographic Factors	28
2.7 Socio-Cultural Factors	31
2.8 Barriers to Family Planning	33



2.8.1 Gender-based barriers	35
2.9 Health Education on Family Planning	35
2.10 Role of Service Providers in Ensuring Contraceptive Security	36
2.11 Postnatal Period.....	37
2.12 Unmet Need for Family Planning	40
2.13 Strategies for Addressing Unmet Needs during the Postnatal Period	43
2.14 Summary of Literature Review	45
CHAPTER THREE	46
3.0 RESEARCH METHODOLOGY	46
3.1 Introduction	46
3.2 Study Area.....	46
3.3 Study Design	49
3.4 Dependent Variables (Outcome Variable)	49
3.5 Independent Variables.....	49
3.6 Research Variables	50
3.7 Study Population	51
3.8 Inclusion Criteria.....	51
3.9 Sources of Data Collection.....	51
3.10 Tools for Primary Data Collection	51
3.11 Secondary Sources	51
3.12 Sampling Procedure	52
3.13 Sample Size	52
3.14 Data Quality Control	53
3.15 Data Analysis	53
3.16 Methodological Limitations	54
3.17 Ethical Consideration	54
CHAPTER FOUR.....	55
4.0 FINDINGS/ RESULTS.....	55
4.1 Introduction	55
4.2 Socio-Demographic Characteristics Of Respondents	55



4.3 Knowledge on Contraceptives	57
4.5 Cultural and Customs Influence On Postnatal Services in the District.....	71
4.6 Relationship between Variables	73
CHAPTER FIVE	78
5.0 DISCUSSION OF FINDINGS	78
5.1 Introduction	78
5.2 Respondent's Socio-Demographic Background	78
5.3 Postnatal Service Accessibility in the District	82
5.4 Knowledge of Respondents on Postnatal Family Planning In Kumbungu District	83
5.5 The Effects of Knowledge on Postnatal Care Family Planning In the Kumbungu District	86
5.6 Cultural Practices and Customs Influence On Postpartum Family Planning In The	87
Kumbungu District.....	87
5.6.1 Decision Making With Regards To Contraceptives	89
CHAPTER SIX.....	91
6.0 CONCLUSION AND RECOMMENDATIONS.....	91
6.1 Introduction	91
6.2 Summary of Key Findings	91
6.3 Conclusion.....	92
6.4 Recommendations	92
APPENDIX	106



LIST OF TABLES

Table 2.1	Continuum of Points of Contact of PPFP	14
Table 2.3.2	Modern Contraceptive Methods	22
Table 3.6	Research Variables	50
Table 4.2a	Socio-Demographic Characteristics	55
Table 4.3b	Socio-Demographic Characteristics	56
Table 4.3a	Knowledge of Respondents on Contraceptives	59
Table 4.3b	Knowledge of Respondents on Contraceptives	61
Table 4.4a	Postnatal care and Family Planning	63
Table 4.4b	Postnatal Care and Family Planning	65
Table 4.4c:	Postnatal care and Family Planning	67
Table 4.5	Duration of Respondents' stay away from Spouse after Delivery	72
Table 4.6a	Effects of Socio-Demographic and Cultural Characteristics on Contraceptive use	73
Table 4.6b	Family Planning and Postnatal Session Counseling	76



LIST OF FIGURES

Fig 1.6	Conceptual Framework	12
Fig 3.2	Map of Study Area	48
Fig 4.3a:	List of Traditional Family planning methods	57
Fig 4.3b:	List of Modern Family Planning methods	58
Fig 4.4a	Number of Postnatal visits	69
Fig 4.4b	Place of Delivery	70
Fig 4.5	Cultural and Customs Influence on Postnatal Service	71



ABBREVIATIONS / ACRONYMS

FP:	Family Planning
PPFP:	Postpartum Family Planning
SSA:	Sub Sahara Africa
GDHS:	Ghana Demographic and Health Survey Report
MCH:	Maternal and Child Health
ICPD:	International Conference on Population and Development
GPRS:	Ghana Poverty Reduction Strategy
TFR:	Total Fertility Rate
CPR:	Contraceptive Prevalence Rate
USAID:	United States Agency for International Development
LAM:	Lactational Amenorrhea
POP:	Progestogen – Only – Pills
COC:	Combined Oral Contraceptives
CIC:	Combined Injectibles Contraceptives
HIV:	Human Immuno Virus
IUD:	Intrauterine Device
WHO:	World Health Organisation
FPMCH:	Family Planning and Maternal and Child Health
UNFPA:	United Nations Population Fund
UNICEF:	United Nation Children Fund
RH:	Reproductive Health
DTP3:	Diphtheria-tetanus-pertussis



HIP:	High-Impact-Practice
MGDs:	Millennium Development Goals
SPSS:	Statistical Package for Social Sciences
PNC:	Postnatal Clinic



CHAPTER ONE

INTRODUCTION

1.1 Background to the Study

The rapid growth of the world's population over the past one hundred years results from a difference between the rate of birth and the rate of death. The growth in human population around the world affects all people through its impact on the economy and environment. Owing to the advancements in medicine, man has found cures to previously fatal diseases, thereby resulting in an increase in life expectancy and reduction in mortality rates (Yale-New Haven Teachers Institute, 2015). Childbirth is a major event for a woman and her family but this event can be delayed, timed or avoided due to financial, social, psychological and health conditions and this can be achieved through the means of family planning and birth control (Eillepperson, 1999).

Hunger has always been a companion to poverty. Rapid population growth may intensify the hunger problem in the most rapidly growing countries. According to the population reference bureau (2012), nearly 240 million people in sub-Saharan Africa, or one person in every four, lack adequate food for a healthy and active life and 30 million children in sub-Saharan Africa are underweight. Family planning is a concept that refers to practices that help couples to avoid unwanted births, to regulate the intervals between pregnancies and to determine the number of children one can adequately care for in the family. The role of family planning and or contraception is to therefore help women and men reconcile their sexual lives and their desire for children (Bankole *et al.*, 2006).



According to the Guttmacher Institute (2008), more than one-third of the 205 million pregnancies that occur worldwide annually are unintended. Majority of these unintended pregnancies occur in developing countries, where more than one third of 182 million pregnancies are unintended.

Two-thirds of these unintended pregnancies occur among women who are not using a method of family planning. Sub-Saharan Africa has the greatest unmet need for family planning, with only 21% of married women aged 15-49 using modern family planning in 2003-4, compared to 56% for developing countries (Singh *et al.*, 2009). Sub-Saharan Africa also has the highest adolescent birth rate by region at 121 per 1000 women aged 15-19 years. Education, empowerment, delayed marriage and access to modern family planning are recommendations to reduce this (UNPFA, 2010). Practical barriers to pregnancy planning include service access, method choice, women's status, information, and provider bias (Campbell *et al.*, 2006).

Despite impressive reductions in child mortality and improvements in life expectancy, women's reproductive health lags behind and birth rates remain high. Women in the African sub-region have on average 5.1 children, a decline from 6.7 children in 1970 but still more than double the world average of 2.5 children. At the same time, almost 40 percent of sub-Saharan Africa's population is under age 15 and have yet to enter their reproductive years. Consequently, the reproductive choices of today's young people will greatly influence future population size and food needs in the region (Jason Bremner, 2012).

Sub-Saharan Africa's population is projected to more than double from 856 million to about 2 billion 2050, even if couples choose much smaller families over the coming decades. A rapid decrease in fertility (the average number of children a woman will bear in her lifetime), however,



is far from certain (UN Population Division, 2010). Fertility declines when women and their partners desire a smaller family and choose to delay or space their births, and when they know about and can access a variety of contraceptive methods. Economic development and women's education foster the use of family planning and smaller families; however, a number of challenges contribute to sustained high levels of fertility across the region (Jason Bremner, 2012).

Failure to increase resources for family planning will further delay reproductive health gains and fertility declines and could result in a far larger population and thus greater-than-anticipated food needs in sub-Saharan Africa by 2050 (Susheela *et al.*, 2009). In some cases, population growth is quite directly related to a social problem because it increases the absolute numbers whose needs must be met such as increased school enrolment, jobs, housing, sanitation, and other basic human needs. These problems are compounded when large numbers migrate from rural to urban areas and increase the burden placed on already inadequate supplies and services (Jason Bremner, 2012). Differences in mortality and morbidity that relate to socioeconomic class constitute an inequity. The poor do not have the same access to life-saving and health-maintaining interventions as the rich, yet they aspire to the same healthy lives as those who are economically better off (Gillespie *et al.*, 2007). Most people are unable to understand the harmful effects of overpopulation and lack of ignorance prompts them to avoid family planning measures. One of the first measures is to implement policies reflecting social change. Several studies reported that commonly accepted components of successful family planning programmes include improvements in geographic and public-private sector access to a broad mix of contraceptive methods, availability of competent health-care providers, promotion of active behavioural



change through communications interventions, and political will (Boerma *et al.*, 2008; Robinson *et al.*, 2007). According to the United Nations (2010), over 215 million women who desire safe, effective family planning lack access. As a result advocacy for international family planning has recently intensified, leading to gains been made in improving Sustainable Development goal 4 (Reduce by two thirds, between 1990 and 2015, the under-five mortality rate) and 5 (Reduce by three quarters, between 1990 and 2015, the maternal mortality ratio). Promoting women's reproductive rights and improving access to voluntary contraception reduces neonatal and maternal morbidity and mortality, including that attributable to unsafe abortions.

Maternal and child mortality is one of the most unfortunate tragedies in our time.

For decades, sub-Saharan Africa has been the region with the highest maternal and child death ratio (Ganyaglo & Hill, 2012), accounting for 57% of the 99% of Maternal Deaths in 2008 in the developing world (358,000) (Ganyaglo & Hill, 2012) and an estimated 7.6 million children die under the age of five (WHO, 2010). The health care that a mother receives soon after delivery is important for the survival and well-being of both the mother and the child (WHO-AFRO, 2010). An important intervention towards achieving the target of Sustainable development goals 5 is the promotion of modern family planning (FP) among women in sub-Saharan Africa. Uptake of modern FP methods remains low in SSA and this is associated with a high incidence of unwanted pregnancies, unsafe abortions, unplanned deliveries and maternal mortalities (Crossettes, 2005, Cates *et al.*, 2010).

The periods of pregnancy and immediately after delivery are considered opportune for counseling women on the adoption of modern FP methods. This is because this period is often associated with a woman's frequent encounter with the health system (Warren *et al.*, 2010).



Postnatal care is pre-eminently about the provision of a supportive environment in which a woman, her baby and the wider family can begin their new life together. It is not the management of a condition or an acute situation (Demott *et al.*, 2006).

Current models of postnatal care originate from the beginning of the 20th century, when they were established in response to concerns about the contemporary high maternal mortality rate. The timing and content of care have altered a little since then, despite a dramatic reduction in mortality rates which occurred around the middle of the 20th century. Postnatal care provision crosses acute and primary healthcare sectors, with the majority of care taking place in the woman's home. Care is likely to include routine clinical examination and observation of the woman and her baby, routine infant screening to detect potential disorders, support for infant feeding and ongoing provision of information and support. Postnatal care is usually concluded by a 6 – 8 week postnatal examination, which marks the end of the woman's maternity care. (Sebastian *et al.*, 2013). The WHO in 2012 estimated nearly 300, 000 maternal deaths worldwide, with 99% in developing countries, and a lifetime risk of maternal death of 1 in 39 in sub-Saharan Africa compared to 1 in 3800 in the developed world (WHO, 2012 and Adjei *et al.*, 2013).

Improving women's choice to plan pregnancy, by increasing access to modern family planning methods, is a key intervention in the Millennium Development Goals to improve maternal and child health and reduce mortality. Modern family planning methods are estimated to have the potential to save 150 million maternal deaths a year by reducing adolescent pregnancy, birth spacing and limiting family size (DFID, 2010).

Family planning uptake during the postpartum period has the potential to significantly reduce the number of unintended pregnancies. Ross and Winfrey (2001) have demonstrated a large unmet need among women in the extended postpartum period. Meeting these needs would substantially increase contraceptive prevalence as well as reduce maternal and child mortality (Cleland *et al.*, 2006). Family planning use can benefit infant and maternal health through longer intervals between births. Programmes for pregnancy planning, and individual decisions to use family planning, are strongly influenced by social, cultural, and faith factors, summarized in an evidence review (DFID, 2010).

The postpartum period is a unique phase in the life of a woman and her newborn baby. It is a time of transition, adjustment and adaptation along with significant biological, social and psychological changes (WHO, 1998). This is also the period most women would often visit a health facility for the care of their newly born babies and this can be a window of opportunity for health providers to introduce them to modern contraceptive methods. It is therefore necessary for family planning programs to recognize the importance of providing FP to postpartum women, since this is the period fertility returns and presents the highest unmet need for FP. Postpartum Family Planning therefore, is the initiation and use of FP during the first year after delivery (Cleland *et al.*, 2006).

This study into postpartum FP uptake could provide understanding of key behavioural barriers to family planning uptake in the context of service providers and users. The quest of this study therefore is to assess the level of postpartum family planning uptake by first understanding key behavioural patterns to family planning uptake amongst postpartum women in the Upper West Region.



1.2 Problem Statement

In Ghana, there has been a consistent fall in contraceptive prevalence rate (CPR) since 2005 with a loss of 9.6% in CPR (33.6% in 2005 to 24% in 2011) with the current rate at 27% according to the 2014 Ghana Demographic and Health Survey Report, even though total fertility rate (TFR) is consistently dropping (GSS, 2011), with the current rate being 4.2 (GDHS, 2014). As a result, the Ghana National Population Policy was tasked to reduce the fertility rate from 5 to 3 and to increase contraceptive usage from 28% in 2010 to 50% by the end of the year 2020. What has accounted for the decline in contraceptive uptake is not well understood and demands a careful inquiry into this debacle.

In 2012, the Ghana health service expressed worry about the low patronage of contraceptive and family planning methods across the country which according to the service was the major cause of maternal mortality ratio of which 20 to 30 percent were due to unsafe abortions and that family health indicators show low uptake of family planning services particularly in the Northern regions with decreasing acceptor rate of 31% in 2009 to 24.9% in 2010 and relatively the same in 2011, with the Kumbungu district having an acceptor rate of 5%. However, at the current rate of 24%, there is still a wide gap to fill. There is even still a widening range of variation in contraceptive prevalence across the three regions of the north suggesting a chronic unmet need for contraception. This unmet need is met with abortion, the second highest contributor to maternal death (15%) in Ghana (Kpakpah, 2011).

The current family planning acceptance rate has reduced from 33.6% in 2005 to 31.1% in 2009 Ghana Statistical Service/ Ghana Health Service (2009) with clients' preference for shorter term methods compared to other modern methods. FP can avert more than 30% of maternal deaths



and 10% of child mortality if couples space their pregnancies more than 2 years apart (Cleland *et al.*, 2006). Closely spaced pregnancies within the first year postpartum are the riskiest for mother and baby, resulting in increased risks for adverse outcomes, such as preterm, low birth weight and small for gestational age (Da Vanzo *et al.*, 2007). Risk of child mortality is highest for very short birth-to-pregnancy intervals (<12 months). If all couples waited 24 months to conceive again, under-five mortality would decrease by 13%. If couples waited 36 months, the decrease would be 25% (Rutstein, 2008).

The postnatal period is neglected throughout Africa, as many women and their infants are not encouraged to seek care until six weeks after delivery, at which time they may or may not receive adequate attention. In addition, the FP needs of women during the first year postpartum are not well addressed. This is meant to ensure improved standard of living for the people using scarce resources. The fertility rate, the contraceptive prevalence rate and the unmet need for family planning services according to the 2008 Demographic and Health Survey report stand at 4%, 17% and 35% respectively with rural – urban disparities. However, according to the 2014 GDHS report, the fertility rate, the contraceptive prevalence rate and the unmet need for family planning services stand at 4.2%, 24% and 30% respectively with rural – urban disparities. Ghana's maternal and child mortality rates still remain high despite efforts to meet the Sustainable development goals 4 and 5. The Northern region according to the 2014 GDHS report has the low contraceptive prevalence rate (11%). Ovulation can occur as early as 25 days postpartum among nonbreastfeeding women, underscoring the importance of initiating contraception in the very early postpartum period (Jackson, 2011). According to current statistics



on maternal mortality rates, Ghana is doing 350 deaths per 100,000 live births with an Average Annual Reduction Rate of 2.9% (Ganyaglo & Hill, 2012).

Women in rural areas have an average of two children more than those in urban areas (4.9 versus 3.1) and use modern FP methods less than their urban counterparts (15% versus 19%). The level of unmet need for FP methods shows similar trends (rural 38% and urban 32%). The postpartum period remain neglected in FP research in Ghana, and very few studies have focused on the FP needs of women during this period. About 84% of women considered PFP acceptable, and 70% intended to adopt a method (Sebastian Eliason, *et al.*, 2013) because postpartum women have realized that there is a greater possibility of getting pregnant unintentionally due to nonuse of contraceptives. A study by Sebastian Eliason, Frank Baiden, & Co, July 2013 on Factors influencing the intention of women in rural Ghana to adopt postpartum family planning focused on male involvement, with little being heard about the role of postnatal care on family planning adoption during the postnatal. Also, a study by Tirah Haruna in 2014 on the predictors of postpartum family planning uptake: understanding provider and potential family planning user behaviour in the Wa municipality of the Upper West Region, Ghana focused mainly on the effects of socio-demographic factors on postpartum family planning adoption without looking at other predictors such as socio-cultural, as indicated in the conceptual model below. The quest of this study therefore is to assess the level of postpartum family planning uptake by first understanding key behavioural patterns to family planning uptake amongst postpartum women in the Kumbungu district of the northern region.



1.3 Main Objective

- ❖ To assess the impact of postnatal care services on family planning in Kumbungu district of the Northern region of Ghana

1.3.1 Specific Objectives

- ❖ To describe the association between family planning and socio-demographic characteristics of women in the district.
- ❖ To describe how family planning education is associated with postnatal care service delivery in the district.
- ❖ To determine women perception about family planning and how it contributes to unmet need.

1.4 Relevance of the Study

Advocates of family planning have justified FP on the basis of health and human right benefits. Benefits that may accrue to smaller family size ranges from good nutrition, health and education resulting in better standard of living (DFID, 2007). About 84% of women considered PFP acceptable, and 70% intended to adopt a method (Sebastian Eliason, *et al.*, 2013) because postpartum women have realized that there is a greater possibility of getting pregnant unintentionally due to nonuse of contraceptives. Much has not been documented about the family planning behavior of women after delivery. High rates of unintended are recorded among postpartum women especially in low income settings.

The main rationale of this study is to provide an understanding on family planning uptake in the context of health service providers and respondents decision making in the Kumbungu district of the northern region.



Challenges will be identified and recommendations made to enable policy makers design programmatic strategies for effective postpartum contraceptive use in Ghana. It will also serve as a guide for major players in the health sector devise cost effective methods of introducing family planning to clients. Furthermore, it would provide new knowledge for further research towards understanding potential family planning users' behavior.

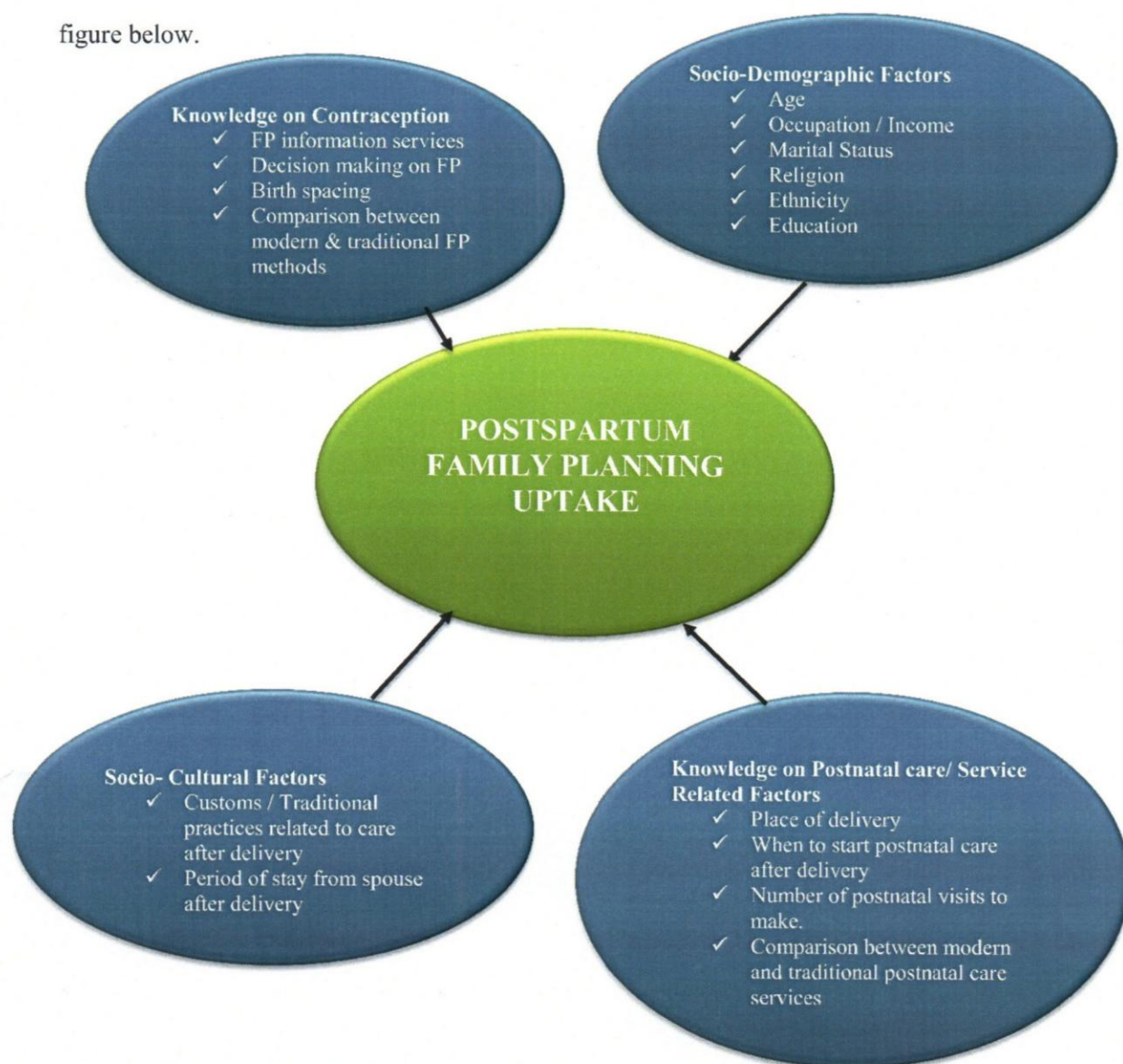
1.5 Scope of the Study

The research is designed to assess the impact of postnatal care services on family planning adoption in the Kumbungu district, with emphasis on family awareness among postpartum mothers. References will be made to other parts of the world, the nation Ghana and to the research location.



Fig. 1.6 Conceptual Framework

The relationship between postnatal care services and family planning is conceptualized in the figure below.



Researcher's Construct, May 2015



CHAPTER TWO

2.0 LITERATURE REVIEW

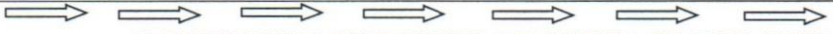
2.1 Introduction

This chapter explores literature on the availability of contraceptive methods appropriate for women during the postnatal period and how these can also be used to compare and track trends in the integration of postpartum FP with Maternal and Child Health services. The focus is on socio-demographics, service related, knowledge on contraception and postnatal care.

Family planning (FP) is important throughout an individual's and couple's reproductive life. On the other hand postpartum family planning (PPFP) is defined as the prevention of unintended and closely spaced pregnancies through the first 12 months after childbirth (WHO, 2012). Family planning services were hitherto left to function in isolation of other maternal and health care services. However, postpartum family planning is integrated with existing MCH programs (1). The various recommended points of integration of family planning into the maternal and child health programme are; Labour and delivery entry point, Antenatal care services entry point and postpartum post natal care entry point as shown in the table below (WHO, 2013).



Table 2.1: Continuum of points of contact for postpartum family planning

 CONTINUUM OF POINTS OF CONTACT FOR PFP			
Pregnancy	Labour and delivery. Pre-discharge (0-48 hours)	Postnatal, including prevention of mother-to-child transmission of HIV (PMTCT) (48 hours-6 weeks)	Infant care (4-6 weeks through 12 month)
Facility-based antenatal care (ANC) Community-based pregnancy screening	Facility-based or home-based with skilled birth attendant	Facility or household visits: - If birth at home, within 24 hours of birth - If birth in facility, prior to discharge - Day 3 (48-72 hours) - Between days 7-14 after birth - 6 weeks	Facility, home visit, or community-based: - Immunizations (diphtheria-pertussis-tetanus (DPT) or Pentavalent 1,2,3; measles, rotavirus; boosters; etc) - Well child visits - Nutrition / growth monitoring - Event days (e.g. Vitamin A) - Illness visits (e.g. Integrated community Case Management/Integrated Management of Childhood Illness (iCCM/IMCI) - PMTCT/antiretroviral care and treatment

Adopted From WHO, 2013

2.2 Family Planning

Contraceptive use has increased in many parts of the world, especially in Asia and Latin America, but continues to be low in sub-Saharan Africa. Globally, use of modern contraception has risen slightly, from 54% in 1990 to 57.4% in 2014. Regionally, the proportion of women aged 15–49 reporting use of a modern contraceptive method has risen minimally or plateaued between 2008 and 2014. In Africa it went from 23.6% to 27.6%, in Asia it has risen slightly from

60.9% to 61.6%, and in Latin America and the Caribbean it rose slightly from 66.7% to 67.0% (WHO, 2015). Unexpected or unplanned pregnancy poses a major public health challenge in women of reproductive age, especially in developing countries (Singh *et al* 2003). It has been estimated that, of the 210 million pregnancies that occur annually worldwide, about 80 million (38%) are unplanned, and 46 million (22%) end in abortion (Mustafa, 2014). More than 200 million women in developing countries would like to delay their next pregnancy or even stop bearing children altogether but many of them still rely on traditional and less effective methods of contraception or use no method at all (Adeyemo *et al*, 2012).

Those who do not use any contraceptive method may lack access or face barriers to using contraception. These barriers may include lack of awareness, lack of access, cultural factors, religion, opposition to use by partners or family members, and fear of health risks and side effects of contraceptives. In 1999, 179 countries, including Ghana, joined the United Nations General Assembly Special Session on the International Conference on Population and Development (ICPD) for worldwide contraceptive security (Guttmacher, 2003). Governments were mandated to strive to ensure that by 2015 all primary healthcare and family planning facilities are able to provide directly or through referral, the widest achievable range of safe and effective family planning and contraceptive methods among others.

It is widely recognized that population and development are inextricably linked. The central objective of the Government of Ghana's development agenda as set out in Ghana: Vision 2020 (1996) is to improve the quality of life for all Ghanaians, to generate employment and to reduce poverty. These goals are further reflected in Ghana's Poverty Reduction Strategy (GPRS –2002) agreed to by international donors. The national goals are translated into policies and strategies in



the five-year Programme of Work 2002-2006. This in turn is translated into a framework for action in the Ghana Health Sector Programme of Work (2002).

Ghana's revised population policy (1994) set new targets within the framework of a national development strategy. One of the targets in the new policy was the reduction of Total Fertility Rate (TFR) to 4.0 by 2010 and 3.0 by 2020. This is to be achieved by attaining a Contraceptive Prevalence Rate (CPR) of 28 per cent by 2010 and 50 per cent by 2020. The attainment of these goals is recognized as integral to Ghana's national strategy of economic development as outlined in the Vision 2020 Plan of Action. Progress towards these goals has been steady and encouraging, yet much remains to be done to meet the development strategy targets.

Between 1988 and 1993 there was a drop in TFR from 6.6 to 5.5 with an increase in contraceptive prevalence from 5% to 10.5% (modern methods). In 1998 there was a further drop in TFR to 4.6 with a CPR (modern methods) of 13% (GDHS, 1998). In 2002 TFR decreased to 4.4. Preliminary data indicates modern method CPR has increased to 18.7% (GDHS, 2003). Unmet need for contraception remains high. In 1998, 23% of married women had an unmet need for contraception. When combined with the 22% of married women using any method of contraception, potential demand is 45% for contraception. Unmet need is relatively even in rural and urban settings and is highest in the Volta region (28.4%) and Western region (25.7%)

Optimally, MCH programs and services can provide a range of methods to meet the needs of postpartum women for limiting and spacing pregnancies. FP use during the first year postpartum has the potential to significantly reduce the number of unplanned pregnancies leading to fewer closely spaced pregnancy intervals, and decreases in maternal and child morbidity and mortality (USAID/ACCESS-FP (2007). This period is considered opportune because it is the time in



which women come into frequent contact with the health care system. The integration of the range of contraceptive methods for postpartum women with MCH programs and services at the postnatal period provides opportunities to streamline and improve care at the most favorable and critical times for maximizing women's reproductive health and the health of their children. Multiple contacts with MCH services during the antenatal and the postpartum periods have been shown to increase women's use of FP methods by six months postpartum and decrease unmet need for FP (USAID/ACCESS-FP/ Frontiers, 2008). The benefits associated with combining FP and MCH services are directly related to achieving the Sustainable development goals 4 and 5 (reduce child mortality and improve maternal health).

2.3 Types of Family Planning Methods

The postpartum period comes with attendant hormonal, physiological, physical and social changes with respect to women that require a re-definition of feasible contraceptives for that period. Some contraceptive methods commonly cited are lactation amenorrhea (LAM) method, Intra uterine device (IUD), progesterone only oral contraceptive (POC) among others (Levitt *et al.*, 2004; Espey, 2012; Sannisto *et al.*, 2009; and R utaremwa, 2015). According to Levitt, (2004) the lactation amenorrhea method is most efficient (*ceteris paribus*) and also highly acceptable to religious authorities. The criteria for adoption of contraceptives during postpartum period with reference to literature are as follows; the permanency of the method, clinical safety (which method can be used at what point in time), the choice of infant feeding method and the extent to which health facilities were informed of it before delivery (Kennedy, 1996). Generally, hormonal methods of contraception are avoided as much as possible due to their influence on the



lactational process and infant growth. Also, menstrual bleeding and pain have been associated with hormonal methods (Rutaremwaa, 2015).

The World Health Organization recommends the methods for use during the first year postpartum (and beyond) according to its predesigned Medical eligibility criteria for contraceptive use (MEC) (WHO 2009). The laid benchmarks are as follows;

- Immediately after birth and up to six months following birth of a child, a woman can use the lactation amenorrhea method safely under the condition that she breastfeeds her child exclusively. However, another method must be adopted after the six months exclusive breastfeeding period.
- An Intra uterine device (IUD) can be used immediately after birth but not greater than 48 hours afterwards or any time after four weeks postpartum.
- Tubal Occlusion (OT) procedure can be done immediately after birth or up to four days after or any time after six weeks postpartum.
- Non-breastfeeding mothers can adopt IUD, Progesterone or oral contraception immediately following birth. Combined oral contraceptives can also be initiated 3 weeks after delivery. For a breastfeeding mother, POC can only be adopted six weeks after delivery. Also, combined estrogen and progesterone pills cannot be initiated within six months after delivery due to their influence on lactation and infant growth.
- All women, breastfeeding or not, can use condoms immediately after delivery, emergency contraception after 4 weeks, and the diaphragm or cervical cap after 6 weeks.

Outside the postpartum period, all contraceptives can be divided into traditional methods and modern methods.



2.3.1 Traditional Methods

Several family planning methods pre-date the emergence of modern birth control. Before the advent of condoms and hormone-altering drugs, men and women utilized primitive methods for preventing conception. Although some of these techniques are surprisingly effective, they require diligence and careful planning (Juniper, 2014). These methods include;

2.3.1.1 Abstinence

The most effective method of contraception is complete abstinence from heterosexual intercourse. As a contraceptive technique, abstinence is ultimately 100 percent effective and offers additional protection against sexually transmitted infections. Although couples using this family planning technique may engage in other forms of sexual contact, most find it challenging to abstain from intercourse entirely (Juniper, 2014).

2.3.1.2 Withdrawal Method

Also known as coitus interruptus or "pulling out," the withdrawal method is one of the world's oldest family planning techniques. Withdrawal prevents conception by preventing sperm from entering the vagina. For withdrawal to work effectively, the man must fully withdraw his penis from his partner's vagina before he ejaculates. However, this method is not completely effective; sperm may leak if withdrawal is improperly timed. In some cases, viable sperm may also appear in pre-ejaculatory fluid, leading to an unplanned pregnancy (Juniper, 2014).

It needs to be used consistently and it can interfere with sexual spontaneity and requires the male partner to have awareness and control over his ejaculation. Despite correct use, failure can occur because approximately 40% of men have sperm present in pre-ejaculation.



2.3.1.3 Rhythm Method

The rhythm method is also known as the calendar method; it works by predicting the days in which a woman is most fertile. To use this technique, a woman must chart her menstrual history for several months in order to anticipate the dates in which she is ovulating. According to MayoClinic.com, women using this technique must abstain from unprotected sex on the days during which she is most fertile. The rhythm method can be somewhat effective, but it requires careful record-keeping and diligent adherence to the technique (Juniper, 2014). With this method, at least three consecutive menstrual cycles must be used to calculate an acceptable range of fertile days. A woman's fertile days are calculated by selecting the shortest and longest cycle lengths, subtracting 21 from the shortest cycle and subtracting 10 from the longest cycle. Unprotected sex should be avoided on the fertile days. The calculation should be reviewed each month if there is variation in cycle length (Medicine Today, 2013).

2.3.1.4 Cervical Mucus Method

Like the rhythm method, the cervical mucus method of family planning works by predicting the days in which a woman is most fertile. During ovulation, the consistency of cervical secretions will change to accommodate conception. A woman can determine her level of fertility by consistently documenting the color, texture and consistency of her vaginal mucus. The cervical mucus method is reliable only if a woman is intimately familiar with her own body and if the couple consistently use other contraceptive techniques during fertile days (Juniper, 2014).

2.3.1.5 Lactational Amenorrhoea Method

The lactational amenorrhoea method (LAM) is the informed use of breastfeeding for contraception. Breastfeeding delays the resumption of ovulation postpartum due to prolactin-



induced inhibition of the release of gonadotropin-releasing hormone from the hypothalamus and hence luteinizing hormone from the pituitary. LAM is an important contraceptive method worldwide, especially in countries where access to modern methods is limited. Its effectiveness can be relatively high, up to 98% when all of the following criteria are met;

- ❖ the woman remains amenorrhoeic postpartum
- ❖ the woman is less than six months post-delivery
- ❖ the baby is fully and exclusively breastfed (no supplements) and there are no long intervals between feeds (no more than four hours during the day or six hours at night, although no definitive guidance exists).

If one or more of these criteria are not met, the woman should be advised to switch to an alternative method of contraception. In breastfeeding women, the mean time for the return of menses is 28.4 weeks, with a range from 15 to 48 weeks. However, as some women may ovulate before the onset of menses, use of an additional method of contraception can be advised to reduce the risk of a further pregnancy (Medicine Today, 2013).



2.3.2 Modern Contraceptive Methods

Table 2.3.2 Modern Contraceptive Methods

Method	Description	How it works	Effectives to Prevent pregnancy	Comment
Combined oral contraceptives (COCs) or "the pill"	Contains two hormones (estrogen and progestogen)	Prevents the release of eggs from the ovaries (ovulation)	>99% with correct and consistent use 92% as commonly used	Reduces risk of endometrial and ovarian cancer; should not be taken while breastfeeding
Progestogen-only pills (POPs) or "the minipill"	Contains only progestogen hormone, not estrogen	Thickens cervical mucous to block sperm and egg from meeting and prevents ovulation	99% with correct and consistent use 90–97% as commonly used	Can be used while breastfeeding; must be taken at the same time each day
Implants	Small, flexible rods or capsules placed under the skin of the upper arm; contains progestogen hormone only	Same mechanism as POPs	>99%	Health-care provider must insert and remove; can be used for 3–5 years depending on implant; irregular vaginal bleeding common but not harmful
Progestogen only injectables	Injected into the muscle every 2 or 3 months, depending on product	Same mechanism as POPs	>99% with correct and consistent use	Delayed return to fertility (1–4 months) after use; irregular vaginal bleeding common, but not harmful
Progestogen only injectables	Injected into the muscle every 2 or 3 months, depending on product	Same mechanism as POPs	>99% with correct and consistent use 97% as commonly used	Delayed return to fertility (1–4 months) after use; irregular vaginal bleeding common, but not harmful



Method	Description	How it works	Effectives to Prevent pregnancy	Comment
Monthly injectables or combined injectable contraceptives (CIC)	Injected monthly into the muscle, contains estrogen and progestogen	Same mechanism as COCs	>99% with correct and consistent use 97% as commonly used	Irregular vaginal bleeding common, but not harmful
Intrauterine device (IUD): copper containing Intrauterine device (IUD) levonorgestrel	Small flexible plastic device containing copper sleeves or wire that is inserted into the uterus A T-shaped plastic device inserted into the uterus that steadily releases small amounts of levonorgestrel each day	Copper component damages sperm and prevents it from meeting the egg Suppresses the growth of the lining of uterus (endometrium)	99% >99%	Longer and heavier periods during first months of use are common but not harmful; can also be used as emergency contraception Reduces menstrual cramps and symptoms of endometriosis; amenorrhea (no menstrual bleeding) in a group of users
Male condoms	Sheaths or coverings that fit over a man's erect penis	Forms a barrier to prevent sperm and egg from meeting	98% with correct and consistent use	Also protects against sexually transmitted infections, including HIV
			85% as commonly used	
Female condoms	Sheaths, or linings, that fit loosely inside a woman's vagina, made of thin, transparent, soft plastic film	Forms a barrier to prevent sperm and egg from meeting	90% with correct and consistent use 79% as commonly used	Also protects against sexually transmitted infections, including HIV
Lactational amenorrhea method (LAM)	Temporary contraception for new mothers whose monthly bleeding has not returned; requires exclusive breastfeeding day and night of an infant less than 6 months old	Prevents the release of eggs from the ovaries (ovulation)	99% with correct and consistent use	A temporary family planning method based on the natural effect of breastfeeding on fertility

Source: WHO, May, 2013





2.4 Family Planning and Maternal Health

The integration of family planning (FP) and maternal and child health (MCH) programs and services provide multiple opportunities to streamline and improve care at favorable and critical times for maximizing women's reproductive health (RH) and the health of their children. The benefits associated with combining FP and MCH services are directly related to achieving Millennium Development Goals #4 reduce child mortality and #5 improves maternal health. Through collaboration with a number of international partners, the USAID ACCESS-FP program has been working to expand the integration of FP with MCH programs in these priority areas: (1) policies and strategies to include FP in national maternal and newborn essential care packages; (2) postpartum (PP) information on return to fertility, pregnancy spacing and FP methods in curricula, standards, and guidelines for training and service delivery; (3) behavior change communication strategies promoting pregnancy spacing and FP; and (4) facility- and community-based approaches for integrating antenatal care (ANC), safe delivery, essential newborn care, and PP care for mothers and newborns (USAID, 2008a).

ACCESS-FP is integrating women's needs for RH care and postpartum family planning (PPFP) with newborn and child health services, including prevention of mother-to-child transmission of HIV, during the extended PP period (i.e., through the first year after delivery). Family Planning use during the first year PP has the potential to significantly reduce the number of unplanned pregnancies and research has shown a large unmet need among women in the extended PP period. Meeting these needs could substantially increase contraceptive prevalence, reduce the percentage of birth intervals that are dangerously close, and reduce maternal and child mortality (Cleland *et al.*, 2006).

In 2005, a WHO technical consultation recommended the minimum interval of 24 months after a live birth before attempting the next pregnancy in order to reduce risk of adverse maternal, perinatal, and infant outcomes (WHO 2006). Greater FP use during the extended PP period, full exclusive breastfeeding, and slower return to sexual activity can combine to lengthen birth intervals. From a programmatic standpoint, women who use maternal health services are more likely to use FP services during the extended PP period (Borda *et al.*, 2010).

ACCESS-FP focuses on four PP fertility reducing factors: (1) return of menses; (2) return to sexual activity; (3) breastfeeding and the lactational amenorrhea method (LAM); and (4) use of maternal health services, and has developed a programmatic framework for integrating PPFP with maternal, newborn, and child health (USAID, 2008b). For FP, emphasis is placed first on integrating FP messages during ANC and then on immediate PPFP, highlighting the importance of the six-week PP visit given the crucial timing for PPFP acceptance (Cleland *et al.*, 2006). In maternal health, the focus is placed on skilled delivery care and the immediate PP period, again with corresponding reference to the six-week PP visit. For newborn and child health, emphasis is placed on immediate and postnatal care and the immunization schedule. For women with HIV, counseling on exclusive breastfeeding, and the impact of abrupt weaning on women's return to fertility are stressed. The framework lays out the multiple overlapping opportunities to promote spacing of pregnancies and to provide FP information within the context of maternal and infant health services (Mwangi *et al.*, 2008).

Integrating and scaling up PPFP services necessitates putting systems in place for monitoring and evaluating (M&E) levels and trends of PPFP use, training and service delivery, and the impact on various measures of MCH (Mwangi *et al.*, (2008). The six core indicators selected for

this database cover the programmatic areas recommended by ACCESS-FP, focusing specifically on clients' use of PPFP services, the quality of these services and the unmet need for PP contraception.

2.5 Socio-Economic Factors

Use of modern methods increases with household wealth. Twelve percent of women in the poorest households use a modern method of family planning compared with 21% of women in the wealthiest households (GSS/GHS/ICF Macro, 2009).

According to Rutaremwa, (2015) mothers with the richest wealth status are approximately three times more likely to use family planning compared to their counterparts with lower wealth status (OR=2.64; 95% CI=1.81-3.86). Another study in Malawi pointed out that women in the highest wealth quintile are prone to family planning use compared to those on the lowest wealth quintile. This finding was attributed to the rich relatively higher access to family planning information and services (Adebawale, 2014).

Most research on contraception turn to focus on the supply and demand factors determining contraceptive behavior because the motivation is basically to limit, postpone and space births and these in themselves are determined by an array of economic, social and cultural factors. According to Biddlecom *et al.*, (1996), the cost of contraception encompasses much more than accessibility to family planning services and that it includes all factors (social, psychological, and cultural) that may act as barriers to contraceptive practice among men and women.

The cost-effectiveness of family planning in poverty reduction and socio-economic development in the developing world cannot be disputed. Evidence from Bangladesh shows that long-term



investment in an integrated family planning and maternal and child health (FPMCH) programme contributed to improved economic security for families, households, and communities through larger incomes, greater accumulation of wealth, and higher levels of education (Eliason *et al.*, 2014).

Further evidence showed that every dollar spent on family planning saved at least US\$4 that could have been spent treating complications from unintended pregnancies and saved governments up to US\$31 in health care, water, education, housing, sewers, and many more. (Singh *et al.*, 2009, and Speidel *et al.*, 2009). Thus, if individuals and couples, especially in the developing world, planned their pregnancies and families, with improved use of contraception, they are more likely to have fewer and healthier children which will reduce the socio-economic burden on them and allow more investment in each child's care and education, helping to break the cycle of poverty (Eliason *et al.*, 2014).

Research on fertility determinants during the last four decades has focused on economic and socio-cultural factors that affect the attitude of individual or couples towards family size. The policies and programmes intended to bring about a change from large to small family norms cannot succeed without a thorough understanding of these factors in various socio-economic contexts especially in an environment with high fertility and low contraceptive use (Abdul-Karim, 2010).



2.6 Socio-Demographic Factors

Studies have identified such demographic factors as age of women, number of living children, desired family size and experience of child death as major factors that influence contraceptive use. Contraceptive use is lowest among young women, reaches peak level among women in their thirties and declines among older women (Rutaremwa *et al.*, 2015). This is indicative of a high desire for child bearing among young women, and a high growing interest of spacing births among women in their thirties. Percentage of users decline at older age of reproduction due to the fact that older women are not at a high risk of pregnancy (Robey *et al.*, 1992). Although many United Nations member countries, particularly those in the developed world, have strong family planning programs, this is not the case in sub-Saharan Africa, where despite a rise in contraceptive prevalence, many women continue to have unmet need for contraception (UNFPA 2012; Cleland *et al.*, 2006). Whereas age at first marriage has generally increased around the world, several parts of sub-Saharan Africa are still struggling with a significant proportion of girls being married off before their 18th birthday (UNICEF, 2005). Early marriage exposes these young girls to frequent and unprotected sexual intercourse, which can lead to early and risky first birth (Mensch, 1998; Haberland, 2005).

Several researches have hypothesized that there is a correlation between level of education and contraceptive use. It has also been hypothesized that there is a positive correlation between contraceptive use and level of education. Other things being equal the higher the level of education, the higher contraceptive use is expected to be (Sileo, 2015; Rutaremwa *et al.*, 2015; Agyei *et al.*, 1995). Although both wives' and husbands' education is important, there appears to be a consensus that the former is more important than the latter. Thus contraceptive use is



affected by the educational status of mothers (Feyisetan 2000; Hiale mariam *et al.*, 1999; Tawiah, 1997; Saleem *et al.*, 2005; Stephenson *et al.*, 2007).

Use of family planning is higher in urban than rural areas (Agyei *et al.*, 1995). This disparity in the adoption of contraception is highest in Sub Saharan Africa, where the rate is more than twice as high as among urban than rural in all most countries. The observed variation in contraceptive use by place of residence may be attributed to differences in the availability of such social services as education, information about family planning, access to family planning and health care services (Curtis *et al.*, 1996).

Religious affiliation also affects contraceptive use as various religious bodies hold different views on fertility regulation (Rutaremwa G. *et al.*, 2015). The major world religions, Catholicism and Islam are widely regarded as pronatalist in their ideology. However, the relationship between religion and contraceptive use is much more complex than expected (Martin, 2013). A study of contraceptive use in Bangladesh found that Muslim women were less likely to use contraception than Hindu women. Another cited family planning uptake being common with protestant churches compared to Catholics (Jones *et al.*, 2011). The strength of one's religiosity or degree of one's adherence to the norms of a given religion may exert an influence on ones' mode of life including his /her reproductive behaviour. Furthermore, studies in developing countries reveal that social, cultural and religious unacceptability of contraception frequently emerged as an obstacle to use contraception

The work status of women has also been linked to knowledge and use of contraceptives. Women who work outside the home have higher rate of contraceptive use than housewives. Working women, particularly, those who earn cash incomes are assumed to have greater control over



household decisions and increased awareness of the world outside home than housewives. They also have more control over their reproductive decisions than housewives. Some studies also add that paid work also provides alternative satisfactions for women, which may compete with bearing and rearing children and may promote contraceptive use (Martin, 2013).

Furthermore, factors as age of women (Adebowale *et al.*, 2014; Rutaremwa *et al.*, 2015), number of living children (Rutaremwa *et al.*, 2015), desired family size and experience of child death are major factors that influence contraceptive use. Contraceptive use is lowest among young women and reaches its peak among women in their thirties and declines among older women. This is indicative of a high desire for child bearing among young women, and a high growing interest of spacing births among women in their thirties. Percentage of users declines at older ages of reproduction due to the fact that older women are not at a high risk of pregnancy. Studies have shown that use of contraception increases with parity of woman up to the third or fourth child and then decline thereafter. This is partly because, many women have a desire to space births at early reproductive age and seek to stop after the desired family size has been achieved (Martin, 2013).

Survival status of children is likely to affect the practice of contraception. Parents who have experienced a death of a child may be less likely to use contraceptives than others of the same parity. This may arise from the desire to replace a dead child or to insure against childlessness contributing to high fertility (Adanu *et al.*, 2009; Black *et al.*, 2009)

Other Studies also indicate that women in a polygamous marriage are less likely to use contraceptives than women who live in monogamous marriages. A lower frequency of intercourse for women in polygamous marriages can discourage them from using contraception.



Also, these women are likely to adhere to traditional values and customs that encourage large families and this could lead to a decline in contraceptive use. (Martin E. P., 2013)

2.7 Socio-Cultural Factors

Casterline *et al.*, (2001) noted that socio-cultural and religious disapprovals of contraception repeatedly emerge as important obstacles to the use of a contraceptive method. Wall (1998) identified a combination of these factors that obstruct contraceptive knowledge, adoption, and use among Hausa women in northern Nigeria.

In some studies, mother and spousal communication on contraceptive choices and decisions goes a long way to influence family planning uptake (Sileo *et al.*, 2015). Related to this is the acceptability of family planning methods and decisions to partners or the male factors in the family (Eliason *et al.*, 2013). Another factor is prior contraceptive use or experience with family planning methods (Eliason *et al.*, 2013; Sileo *et al.*, 2015). According to Rutaremwa (2015), skilled birth attendance, one to two days post-delivery care and the media can greatly increase the odds of contraceptive use.

Most people and governments recognise family planning as a basic human right, which necessitates the need for family planning programmes at all levels of health care services. However, in the early 1990s, family planning programmes faced the challenge of finding better ways to deliver services to millions of people who would use family planning. The behavioural changes demanded of the target population depend on a good understanding of the knowledge, attitudes and practices of individual towards family planning and child-spacing in the given community (Abdul-karim, 2010).



Modern family planning methods are widely believed to influence fertility worldwide. However, traditional methods are still used as the main method of fertility regulation in African societies (Abdulkarim *et al.*, 2010). Despite some regional variations, several generalizations can be made about the African household. Most African households are generally rural, patriarchal and hierarchical. They give great emphasis to perpetuation of the family lineage. Mostly these households are polygamous and are usually not nuclear and embrace kinship networks. These characteristics affects the individual's perception of the possibly and desirability (if advantageous) of making conscious choice regarding the number and timing of births. The social organization of households especially the place of women within them tend to inhibit the taking of conscious, deliberate choices regarding the number and timing of births (UN/POP/PFD, 2001).

The social, cultural and traditional beliefs and practices that are embedded in the social system have an impact on decisions related to fertility. Fertility patterns observed in developing countries in general, and in Ghana in particular, can be attributed to the traditional attitudes and cultural values held by communities and tradition of communities about having a larger number of children. Traditional family planning methods constitute a considerable proportion of the contraceptive methods used in both urban and rural Ghana. The socio cultural factors that affect decisions regarding fertility and fertility regulation in remote areas of Ghana are poorly understood (Yetmgeta *et al.*, 2004).

2.8 Barriers to Family Planning

The unmet need for contraception remains high. This inequity is fuelled by both a growing population, and a shortage of family planning services. In Africa, 23.2% of women of reproductive age have an unmet need for modern contraception. In Asia, and Latin America and the Caribbean – regions with relatively high contraceptive prevalence – the levels of unmet need are 10.9 % and 10.4%, respectively (World Contraceptive Reports 2013, UNDESA).

An estimated 225 million women in developing countries would like to delay or stop childbearing but are not using any method of contraception. Vertical programming which establishes divisions between maternal, newborn, and child health (MNCH) and family planning care is partly to blame for these happenings. Postpartum care of any type is a neglected aspect of care in the facility and the community. Service providers, both MNCH and family planning providers feel over-burdened and poorly motivated (WHO, 2015).

MNCH care providers:

- ❖ Lack knowledge and confidence in family planning skills
- ❖ Do not understand the pregnancy risk of women during the postpartum period

And Family planning service providers:

- ❖ Have little opportunity to contact the woman during pregnancy, labor, or during the early postpartum period and so are not able to educate women about the lactational amenorrhea method (LAM) and transition to another family planning method, or to counsel about return to fertility and future reproductive desires
- ❖ Are uncertain about which methods are safe for the breastfeeding woman and when methods can be initiated after delivery (WHO, 2015).



Family planning services are often not available in maternal and child health clinics or maternity in-patient settings. Delivery rooms, or maternity units of any kind, are rarely supplied or equipped for the provision of post-placental IUDs.

In some countries, independent schedules exist for mothers and children, requiring mothers to visit the health center several times over a short period of time. This increases the cost of care and, given the preference for the child's care, acts as a deterrent for women's use of services for herself. Some providers think that a woman needs to be menstruating in order to receive an IUD or contraceptive pills. This rule out postpartum women who are amenorrheic after six months of using LAM, although the risk of pregnancy is low and the use of many methods (e.g., oral contraceptives) would not be harmful even if the woman might be pregnant.

Some reasons further include:

- ❖ limited choice of methods;
- ❖ limited access to contraception, particularly among young people, poorer segments of populations, or unmarried people;
- ❖ fear or experience of side-effects;

Cultural or religious opposition; in some cultures, women are not permitted out in public for the first 40 days following birth. Therefore, these women cannot access facility-based postpartum services (WHO, 2015).



2.8.1 Gender-based barriers.

Programs that offer a wide method mix at maternity sites have greater uptake of contraceptives than programs that do not. The proportion of women who receive a contraceptive method in Haiti and Nicaragua - where IUDs, pills, injectables, implants, LAM, and condoms are offered - was found to be 25% and 44%, respectively. However, in the Dominican Republic - where only female sterilization was offered in most hospitals - the proportion of women receiving a contraceptive method before discharge was only 12% (Quiterio *et al.*, 2008; Rivero-Fuentes *et al.*, 2008; Solis *et al.*, 2008).

2.9 Health Education on Family Planning

Postpartum care, of any type, is often neglected in homes, communities, and facilities. When the postpartum woman receives counseling or health information, it usually focuses on care of the newborn and recognition and response to danger signs. If a woman leaves the facility after birth with any health educational information, it usually does not include information about postpartum family planning (Els D. *et al.*, 2015).

Counseling and health education during antenatal and postpartum care should include discussion of future childbearing intentions and family planning options to help women achieve their intentions (Mohammed A. *et al.*, 2015). Likewise, discharge counseling and client education information after childbirth should include educational materials, which reinforce key messages that the client can take home. In Pakistan, 56.9% of women who had received family planning counseling and leaflets prior to discharge from the maternity unit had started using a modern contraceptive method by 8 to 12 weeks postpartum as against 6.3% contraceptive usage among women who did not receive any information prior to discharge (Saeed *et al.*, 2008).



In Nigeria, the need for a husband's permission to seek services was perceived as a key barrier. Husband's approval was reported as a reason for not choosing a method during a postpartum visit at a health facility (Rawlins *et al.*, 2007). In the Bangladesh Health Fertility Study, mothers-in-law, husbands, and religious and community leaders are oriented on the importance of postpartum family planning for the health of mothers and babies. This orientation is done to create a facilitating environment for the use of contraceptive methods (Chakraborty *et al.*, 2008).

2.10 Role of Service Providers in Ensuring Contraceptive Security

Contraceptive Security exists when every person is able to choose, obtain, and use quality contraceptives whenever needed. And this is the principle concepts of Contraceptive Security which is supposed to be consumer- and client-focused. As the primary point of contact with the client, the service provider is a central figure in supporting these three objectives:

Choose: Service providers offer clients the information they need to make an informed choice on which method best fits their needs and lifestyle.

Obtain: In the RH continuum, service providers can contribute significantly to ensuring clients have access to quality products and services.

Use: Service providers' knowledge and skills are also critical to guaranteeing that a person who chooses and obtains a contraceptive method will be able to correctly use it to achieve their fertility goals and RH needs (USAID, 2010).

Irregular access to contraceptive supplies and use impedes program effectiveness and quality of care and may lead to;

- ❖ diminished confidence among clients in clinical services and the overall health system
- ❖ increased risk of contraceptive discontinuation among clients



- ❖ constrained provider ability to offer reliable and integrated services
- ❖ providers' frustration and job dissatisfaction
- ❖ intensified unmet need
- ❖ limited program expansion opportunities in the health and development sectors
- ❖ missed opportunities to engage youth in healthy sexual and RH behaviors
- ❖ promulgation of gender inequities
- ❖ Limited educational and economic opportunities.

Most importantly, service providers bear witness to the direct personal consequences a client may suffer if they are unable to attain and use the contraceptive method of their choice due to erratic supplies or stock outs. These include unwanted pregnancy, unsafe abortion, and poor maternal and child health outcomes (USAID, 2010).

2.11 Postnatal Period

The postnatal period is a period of continuum of care for both the mother and the new born. Most women in the extended postpartum period want to delay or prevent future unwanted pregnancies but many are not using modern contraceptives (Ross *et al.*, 2001). Immunization services have broad reach especially in many resource-constrained settings, where it is seen as the cornerstone of the primary health care system (Andre *et al.*, 2008), with a majority of women seeking immunization services for their children. In 2011, infant immunization coverage was 71% in sub-Saharan Africa and 75% in South Asia (as measured by the estimated delivery of DTP32) (UNICEF, 2013). Immunization programmes aim to achieve high coverage among all population segments, regardless of wealth, sex, or location. An analysis across 68 countries showed that



women are often more likely to access routine infant immunization services than family planning services (Department for International Development, 2010).

The percentage of women 0-12 months postpartum using contraception and percentage of children who received DTP3- containing vaccine by 12 months of age in Rwanda in 2010 was 30% and 95% respectively. In a relevant study conducted in Togo in 1990, researchers found that there was a 54% increase in family planning acceptance and this was attributed to the integration of family planning with other childhood services such as immunization.

An analysis of data from 17 countries illustrated that unmet need for contraception among women in the extended postpartum period is very high, ranging from 45% to more than 80% (Borda *et al.*, 2008). Family planning allows couples to have the number of children they desire and to achieve healthy timing and spacing of pregnancies thereby improving maternal and child health. Closely spaced pregnancies can pose serious health risks to mothers and their children (WHO, 2007a). Pregnancies spaced less than 18 to 24 months apart have been associated with an increased risk of preterm birth; low birth weight; fetal, early neonatal and infant death; and adverse maternal health outcomes. It is crucial to intake advantage of every contact with pregnant and postpartum women to offer them family planning counseling and services (Conde-Agudelo *et al.*, 2012).

Both immunization and family planning services are important components of primary health care. Child immunizations are one of the most equitable and well-used health services globally, and the recommended vaccination and primary health care intervention schedule in the first year of an infant's life calls for multiple health care contacts. Ensuring that family planning counseling and services are linked to infant vaccination contacts through well-managed primary



health care services has the potential to reach mothers with family planning information and services at a critical time—the 12 months following birth. Family planning and immunization integration can refer to either “combined service provision,” when both services are offered on the same day and at the same location, or “single service provision plus referral,” when either family planning or immunization services are provided along with education, screening, or referrals for the other service. Offering family planning services to postpartum women through infant immunization contacts is one of several promising “high-impact practices in family planning” (HIPs) identified by a technical advisory group of international experts in 2013.

A modeling exercise using data from five countries in sub-Saharan Africa demonstrated that reaching postpartum women through immunization contacts could decrease the overall unmet need for family planning by 3.8% to 8.9% (Gavin *et al*, 2011).

Various evidence-based interventions are usually employed to reduce reproductive, maternal and child health complications. Under five mortality still remains high in sub-Sahara Africa and southern Asia although substantial progress has been made towards Sustainable development goals 4 & 5, much still need to be done in order to achieve these goals by 2015. Interventions and strategies for improving reproductive, maternal, newborn and child health and survival are closely related and must be provided through a continuum of care approach (WHO, 2011).

When linked together and included as integrated programmes, these interventions can lower costs, promote greater efficiencies and reduce duplication of resources. However, few efforts have been made to identify synergies and integrate these interventions across the continuum of care. Despite the existing plethora of knowledge, there is a lack of consensus on how best to



move forward in a coordinated manner so as to achieve progress towards the Sustainable Development Goals.

Despite the opportunity for integrated service provision, limited evidence exists on the feasibility and effectiveness of integrating family planning and immunization services (WHO, 2011). Acquiring knowledge about contraceptive methods is an important step towards gaining access to family planning services and making a choice on which method to adopt. Where health services are present, there are many factors—social, cultural, and economic—that cause women not to use the services, particularly when the health concern is related to sexual or reproductive matters. Information on such factors is particularly important in understanding and addressing the barriers women face in seeking care during pregnancy and at the time of delivery.

In the 2008 GDHS, women were asked whether each of the following factors would be a big problem or not a big problem in seeking health care for themselves: getting permission to go for treatment, getting money for treatment, distance to a health facility, having to take transportation, not wanting to go alone to the health facility, concern that there may not be a health provider, and concern that there may be no drugs available.

2.12 Unmet Need for Family Planning

Global unmet need for contraception

The unmet need for contraception remains too high. This inequity is fueled by both a growing population, and a shortage of family planning services. In Africa, 53% of women of reproductive age have an unmet need for modern contraception. In Asia, and Latin America and the Caribbean – regions with relatively high contraceptive prevalence – the levels of unmet need are 21% and 22%, respectively (WHO, 2013).



An estimated 222 million women have unmet need for modern contraception in the developing world (Singh *et al.*, 2012), and this number may increase in the decades ahead if the pace of contraceptive up- take does not keep pace with population growth and the growing demand for smaller families and precisely timed births (Darroch *et al.*, 2011). Estimates also indicate that if all women having unmet need used a modern contraceptive method, 54 million unintended pregnancies and 26 million abortions would be averted each year (Singh *et al.*, 2012). A review of surveys of women in developing countries having unmet need in 1995–2005 indicated that lack of knowledge about contraception has declined substantially and that concerns regarding the side effects and health risks associated with modern contraceptive methods were increasingly common among reasons for nonuse of a method, as were infrequent sexual activity and breastfeeding (Sedgh *et al.*, 2007).

A review of studies of young women, primarily unmarried women in sub-Saharan Africa, also identified lack of access to family planning education and to information concerning how contraceptive methods work as underlying themes across the studies (Williamson *et al.*, 2009). Concerns regarding side effects and health risks pertained especially to menstrual disruption and fears of infertility. Unmarried women were also unwilling to risk the social disapproval associated with seeking services. A broader review of relevant literature regarding barriers to contraceptive use identified obstacles such as limited method choice, misinformation concerning methods, constraints on women's decision-making abilities, health concerns, and provider biases (Campbell *et al.*, 2006). A number of landmark studies found these reasons for nonuse as well, and also indicated that women having unmet need might be less strongly motivated to avoid

pregnancy than are those who practice contraception (Casterline *et al.*, 1997; Stash 1999; Casterline *et al.*, 2001).

Family planning results in healthier children and mothers through promoting appropriate timing between births and ultimately contributes to economic growth. Slow population growth gives parents the opportunity to invest more in the health and education of their children. However, when women do not want to have children anymore or want to wait to have them later, they do not get effective family planning methods to use thereby creating an "unmet need" for family planning. Although women can have their family planning needs met at one point in time, they may face unmet need later for a variety of reasons, including changes in their relationships or fertility plans, or because they discontinue using their current contraceptive method. Because a woman's need for family planning changes over her life, unmet need for family planning is best thought of as being in a state of flux based on a woman's circumstances at a given point in time. (Population Reference Bureau, July 2012).

Global advocacy and development initiatives, including the recent 2012 London Summit on Family Planning, are highlighting the importance of reaching women who have an unmet need for family planning with information and services that will enable them to space their pregnancies and achieve their desired family size. It also came out at the summit that globally, about 222 million women have an unmet need for family planning, and 645 million women have their needs met through the use of a modern contraceptive method such as IUD, pill, injectables or sterilization.



2.13 Strategies for Addressing Unmet Needs during the Postnatal Period

Raise Awareness of FP Needs of Postpartum Women: Providers, women, their families and communities, as well as policymakers and program managers, are often unaware of the need for PPFP and/or do not know that a woman's fertility can return in the early months after birth and that with timely initiation most contraceptive methods are safe for the breastfeeding mother. In addition, policymakers need compelling arguments to expand their focus beyond antenatal care, labor and delivery care, and child care, to address postpartum care, including PPFP (Saeed *et al.*, 2008).

Ensure No Missed Opportunities across the Continuum of Care: The continuum of care throughout a woman's pregnancy, childbirth and postpartum provides an array of opportunities to reach her with FP counseling and services. Between 50% and 60% of pregnant women make prenatal visits or have contact with health care providers at or soon after delivery, and additional contacts occur for infant care and other child health services. And when PPFP is introduced in the context of primary care, including comprehensive maternal, newborn and child health (MNCH) services encompassing antenatal, birth, newborn, immunization, nutrition and community health care, it provides more acceptable, timely and effective ways of reaching postpartum women and addressing their FP needs (Saeed *et al.*, 2008).

Organize Services: Efficient organization of services is essential to allow enough time to include FP counseling and decision-making, and to ensure that integrated services, such as birthing units or immunizations sessions, have all the necessary equipment, supplies, contraceptives and trained staff to provide FP, including long-acting and/or permanent methods.



Pre-service and in-service training of all MCH healthcare providers should ensure that all are skilled in PPFP counseling and services (Saeed *et al.*, 2008).

Maximize Community-Based Care: A recent review indicated that 50% of all births occur outside of health institutions and of those, 70% receive no postpartum care. As a result, these women have limited opportunities to receive FP information or services. And disadvantaged groups such as adolescents, minorities, and rural women may have even less access. Community health workers can bring information and services to women and men in the communities where they live, rather than requiring them to visit health facilities, which may be distant or otherwise inaccessible. Men may effectively be involved in PPFP in their role in decision-making, in influencing the attitudes of families and communities, and as clients (Saeed *et al.*, 2008).

Expand the Range of Options: PPFP methods that can be initiated immediately following birth include:

- ❖ the intrauterine device, which can be inserted immediately and up to 48 hours after birth or after four weeks;
- ❖ a tubal ligation, which can be performed up to one week after birth or after six weeks; or
- ❖ a vasectomy, which can be performed for the woman's partner any time during pregnancy or the postpartum period. In fact, vasectomy is a very appropriate and convenient postpartum method because the 12-week period that it takes before the male is infertile coincides with the normal practice of postpartum abstinence.

The extended postpartum period provides the only opportunity for a woman to use the Lactational Amenorrhea Method (LAM), which can be effectively used up to six months postpartum while the mother is fully breastfeeding, thus providing important nutrition to the



infant. Other methods, including pills, injections, implants and condoms, can be safely used by the breastfeeding or non-breastfeeding mother, although desired time of initiation may vary by method and breastfeeding status (Ross *et al.*, 2001).

2.14 Summary of Literature Review

From available literature, whereas contraceptive prevalence has increased in some parts of the world including Asia and Latin, the story is not the same in Africa especially sub-Saharan Africa. About 84% of women considered PPFP acceptable, and 70% intended to adopt a method because postpartum women have realized that there is a greater possibility of getting pregnant unintentionally due to nonuse of contraceptives. Much has not been documented about the family planning behavior of women after delivery. High rates of unintended are recorded among postpartum women especially in low income settings.

From the available literature reviewed, several factors have being attributed to the low prevalence rate. Most studies focus on factors such as socio-economic, socio-cultural with little emphasis on Maternal and Child Health programmes. However these programmes serve as contact points for mothers and should there be used to educate mothers on family planning uptake.



CHAPTER THREE

3.0 RESEARCH METHODOLOGY

3.1 Introduction

This chapter entails the methods and research procedures used in collecting and analyzing the data. It comprises the study area, research design, and sources of data, sample size, research instruments, and sampling techniques, pre-testing of research instruments, data collection and method of data analysis, ethical considerations and research limitations.

3.2 Study Area

Kumbungu district is one of the newly created districts in the northern region of Ghana. It was carved out of the then Tolon-Kumbungu District in 2011. The district has five sub districts. The district shares boundary with Tamale metro to the south, West mamprusi and west gonja to the north, Savelugu district in the east and Tolon district in the west respectively. The district has one hundred and forty-two (142) communities and ten (10) health facilities sparsely distributed all over the district. It has an estimated population of 53,852 (a projection from the 2010 Population Census with 2.8 % growth rate) with approximately 142 communities, which are sparsely populated and far apart (Kumbungu district annual health Report, 2013).

The main ethnic group is Dagomba with the immigrant population being of various extractions, for example, Dagarbas and Frafras. Languages spoken include Dagaare, Frafra, Dagbani, Mamprusi, Hausa and English. Religious practices include that of the Traditionalists, the Christians and Islam. Literacy in the district is low particularly with girl-child. They form the most vulnerable groups in the society and therefore are targeted for Reproductive and Child



Health services as Women-in-Fertile Age (WIFA) group (15-49yrs) and Children less than five (5) years of age.

The main economic activity is farming with the cultivation of food crops such as yams, maize, beans, groundnuts, and green leafy vegetables. The women and children throughout the district also engage in picking of shear nuts extensively, and the oil extracted for domestic and commercial purposes. Cattle, sheep, goat and guinea fowl rearing is also common in the study area. A small proportion of the population is involved in trading; they have a market day which occurs once in a week in the district capital. These fall to a large extent on different days of the week allowing the movement of traders and buyers from other parts of the district and beyond to transact business and interact with activities throughout the district.

There is adequate access to transportation at all times, one can move in and out of Kumbungu within 24 hours under normal circumstances relying on public means of transport. Motorcycles are used to a great extent by indigents, and also bicycles. There is a Reproductive and Child Health unit that offers all Public Health services; The CHPS zone offers public health services as well as curative services and the health centre also offers OPD service.



Fig 3.1 Administrative map of the district.



Source: Kumbungu District Assembly, 2015



3.3 Study Design

A cross-sectional survey method was used. The cross-sectional study design allowed for the exploration of both effect factors and risk factors in one shot. This was suitable for this research which had little allowable time and resources for follow-up. The sequential explanatory mixed-method design consists of two distinct phases: quantitative followed by qualitative. In this design, data was first collected and analyzed quantitatively (numeric). This was followed by the collection of qualitative (text) data which was analyzed in the second phase to help further explain the quantitative results obtained in the first phase. The rationale for this approach was that the quantitative data and their subsequent analysis helped provide a general understanding of the research problem. The qualitative data and their analysis helped refine and explain the statistical results obtained by exploring respondents' views in more depth.

3.4 Dependent Variables (Outcome Variable)

Postpartum family planning uptake (percentage of women who are likely to use a contraceptive method within the first year of delivery) was considered the main dependent variable of the study.

3.5 Independent Variables

The independent variables used in the study included educational level, marital status, occupation, religion, traditional birth practices after delivery, family planning education, postnatal service education, purpose contraception, preferred family planning method at various stages of the postnatal period, birth spacing, ideal family size, postnatal service satisfaction, attitude of health workers



3.6 Research Variables

Table 3.6 Research Variables

Variable	Operational Definition	Indicator	Indicator Measurement	Type of Variable
Age	Age at the time of survey	Age in years	Questionnaire	Continuous
Level of Education	Highest Education Level attained	None, Formal, Middle/JHS, SHS/Voc, Tertiary	Questionnaire	Ordinal
Marital status	Expressed as single or married	Single, Married/Living together, Divorced	Questionnaire	Nominal
Occupation	What you do for a living	Farmer, Trader, Teacher, others	Questionnaire	Nominal
Religion	Faith of respondents	Christianity, Muslims Traditionalist	Questionnaire	Nominal
Traditional birth practices	Whether respondent goes through after traditional practices after delivery	Yes, No	Questionnaire	Binary
Purpose contraception	Reason for respondent's choice of particular FP method	Cost, Safety, Availability, Spousal approval	Questionnaire	Ordinal
Preferred method	Choice of preferred contraceptive method	Modern, Traditional	Questionnaire	Nominal
Birth spacing	The space between successive births	As reported by respondents	Questionnaire	Discrete
Ideal Family size	No. of children couple agreed to have	As reported by respondents	Questionnaire	Discrete
Postnatal service satisfaction	How respondents feel about postnatal care service delivery	Poor, fair, good, excellent, others	Questionnaire	Ordinal
Attitude of health workers	Health workers attitude towards respondents when they visit the facility	Poor, fair, good, excellent, others	Questionnaire	Ordinal

Source: Field survey, 2015



3.7 Study Population

Women of reproductive age 15-49 years seeking postnatal care in selected health facilities in Kumbungu district were the respondents.

3.8 Inclusion Criteria

Women of reproductive age 15- 49 years of age and with children between the ages of 0-59 months who have ever sort postnatal care in the selected health facilities were included.

3.9 Sources of Data Collection

Data for this study were sourced from both primary and secondary sources.

3.10 Tools for Primary Data Collection

Person-to-person interviews were adopted to collect responses with the aid of semi-structured questionnaires. Data was collected on demographic characteristics, knowledge of respondents on postnatal care and family planning in the district. Likewise, the practices of postnatal care and family planning were assessed. Nominal variables such as; marital status, religion, occupation, preferred family planning method, type with intermittent descriptive type questions such as; what are the traditional practices associated with postnatal care, the benefits of postnatal care, type questions were provided for respondents to give a reason or state an opinion.

3.11 Secondary Sources

The secondary sources included data from studies with relevance to the research topic. Also, data was sourced from the district assembly on demographic characteristics of the community such as the location, geography, population, economic, tourism, among others of the study area. Data was also sourced from the DHMT on postnatal care and family planning services in the district.



3.12 Sampling Procedure

The target population of the survey consisted of mothers (15-49 years old) in the district, distributed in the six sub districts. The respondents were drawn using a multi-stage stratified probability sampling technique. The six sub districts were merged in twos to form three groups using population size and level of development as criteria. From each group or strata one sub district was randomly picked to represent the stratum using a coin toss. Group I consisted of urban community namely Dalun township; Group II consisted of a moderately developed sub district namely Kings Medical Centre, and Group III consisted of a less developed sub district namely Voggu. However, Kumbungu Health Centre was also purposively added because it has an RCH facility providing wide range of postnatal and family planning services to a large number of mothers in the Kumbungu Township. In all the four facilities, all postpartum women who met the inclusion criteria were extracted from the facility records to create a sampling frame. However, the number of clients selected from each facility was determined by probability proportionate to the number of women accessing postnatal services in each facility.

3.13 Sample Size

The formula was given as:

$$n = \frac{t^2 \times P(1-P)}{M^2} \quad (\text{Snedecor \& Cochran, 1989})$$

Where, n is the desired sample size,

n = is the sample size

z = the standard normal deviation 1.96

p = the proportion of respondents using contraceptives (5%)



m = the margin of error

$$n = \frac{(1.96)^2 \times 0.05 (1-0.05)}{(0.05)^2} = 60.8 = 61$$

To cater for non-respondents and incomplete questionnaires, 15% of the sample size was added
(15/100 x 61 = 9) n = 70

Using the default design effect (deff) of 3.0, to achieve the same reliability that a simple random sample (SRS) would produce, the sample size (n) was multiplied by 3;

$$70 \times 3 = 210$$

A final sample size (n) of 210 postpartum women were targeted. However, ten questionnaires were returned. Based on the average delivery rate obtained for each of the six (6) health facilities simple proportion was used to determine the number of respondents that were interviewed at each of the facilities.

3.14 Data Quality Control

To ensure data quality, the data collection tools were pre-tested to ensure reliability and validity. Research assistants were also trained before they took part in the research. There was also continuous scrutinizing of data collected to ensure accuracy, consistency and uniformity.

3.15 Data Analysis

Data collected were coded and entered into the computer. It was subsequently cleaned and analyzed using the Statistical Package for the Social Sciences (SPSS) software, version 21. Results were presented using tables, charts and frequencies. Binary logistic regression analysis was carried out to establish relationship between variables and odds ratio was used as the measure of association between variables and level of significance. Odds ratio is defined as the



ratio of the odds of exposure among cases to the odds of exposure among controls. When the figure exceeds one ($OR > 1$), the risk factor causes the outcome. If it is one or zero ($OR = 1$ or 0), there is no relationship. Also, if odds ratio is less than one ($OR < 1$), then the risk factor is protective. In addition data from open ended questions, focus group discussion and key informant interviews were analyzed qualitatively according to emerging themes. Qualitative data was used to supplement, explain and interpret quantitative data.

3.16 Methodological Limitations

The study basically was cross sectional in nature and as a result it was difficult establishing the relationship between the outcome variables and the exposure. Also the secrecy associated with the use of family planning methods made it difficult for respondents to give out information hence the purpose of the research was continually re-echoed to respondents by facility heads and representatives and the success of this research was largely due to that.

3.17 Ethical Consideration

Due to the sensitive nature of the research topic, I was duly introduced to the district health administration and other key stakeholders in the district with the help of an introductory letter obtained from the department of Community Health and Development of the University.

By this, the purpose of the study was made clear to them which made it possible for them to offer the needed assistance. The consent of respondents was sought and were assured of anonymity as well as confidentiality of the information provided before the interviews were conducted.



CHAPTER FOUR

4.0 FINDINGS/ RESULTS

4.1 Introduction

This chapter focuses on the findings of the study which are presented in tables and figures.

4.2 Socio-Demographic Characteristics of Respondents

Table 4.2a: Socio-Demographic Characteristics

Variable	Frequency (n)	Percentage (%)
Age		
15-20	28	14.0
21-25	53	26.5
26-30	60	30.0
31-35	45	22.5
36-40	41	7.0
Total	200	100.0
Education		
No formal education	114	57.0
Non-formal education	29	14.5
Primary	29	14.5
Middle/JHS	25	12.5
Secondary/Voc. Tech	3	1.5
Total	200	100.0
Marital Status		
Single	1	0.5
Married/Living together	199	99.5
Total	200	100

Source: Field Survey, 2015



Respondents were asked to state their responses on their socio-demographic characteristics such as age, education, marital status, religion, occupation and ethnicity. A range of answers were therefore expected. 30% of respondents were between the ages of 26-30. About 57% of them had no formal education, 14.5% and 12.5% had primary and middle/jhs education respectively with less than 2% having secondary/vocational education. Also, 99.5% of them were married/living together.

Table 4.2b: Socio-Demographic Characteristics

Variable	Frequency (n)	Percentage (%)
Occupation		
Farmer	85	42.5
Trader	52	26.0
Teacher	2	1.0
Unemployed	61	30.5
Total	200	100.0
Religion		
Christianity	26	13.0
Islam	174	87.0
Total	200	100.0
Ethnicity		
Dagombas	187	93.5
Mamprusi	7	3.5
Others	6	3.0
Total	200	100.0

Source: Field Survey, 2015

As depicted in table 4.2b above, 85% of respondents were farmers with 30.5% either unemployed or engaged in petty trading. Also, 52.5% were earning below Ghc100.00 a month with 34% having no income. Respondents are predominantly Muslims representing 87% with

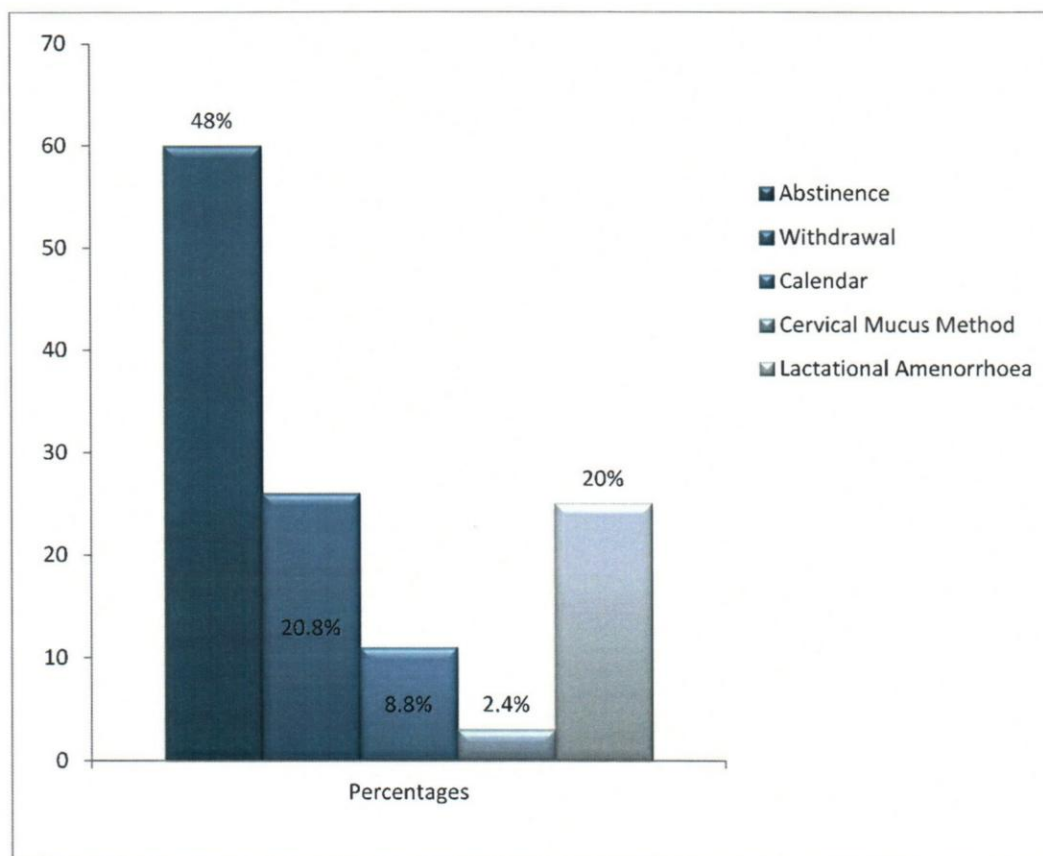


13% being Christians mostly of orthodox extraction (Pentecost, Assembly of God, Presbyterian).

Also, 93.5% were Dagombas.

4.3 Knowledge on Contraceptives

Fig 4.3a: List of traditional family planning methods respondent have heard about



Source: Field Survey, 2015

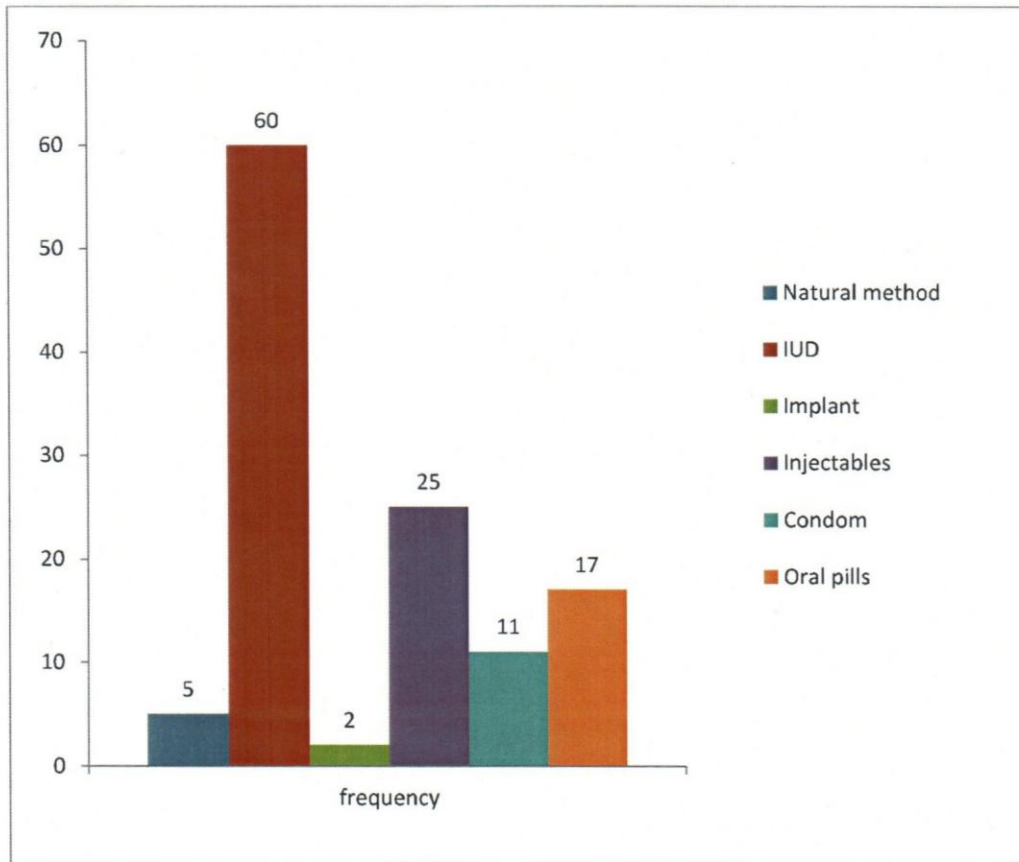
From figure 4.3a above, 48% of respondents have heard about abstinence with 20.8% and 20% with knowledge on withdrawal and lactational amenorrhoea methods respectively.

Also, 23% of respondents also reported of having used two methods before with 14% using three methods before and 0.5% using all methods before.



Figure 4.3b List of modern family planning methods respondent have heard of

The figure below represents the modern family planning methods respondents have heard of.



Source: Field survey, 2015

It is clear from figure 4.3b that 12.5% of respondents reported having heard of Injectables as a modern family planning method. Also, about 3% also reported having heard of IUD with 1% reporting having heard of the implant method. Also, 39% of respondents reported having used oral pills before with 31% also reporting having used injectibles before also. 10.5% also reported having used condoms before with 23.5 % reporting having used two methods before.



Table 4.3a: Knowledge on Contraceptives

Variable	Frequency (n)	Percentage (%)
Whether respondent can take family Planning decision		
Yes	45	22.5
No	155	77.5
Total	200	100.0
Comparison between modern And traditional family planning		
Modern	148	74.0
Traditional	52	26.0
Total	200	100.0
Reasons for Choice		
Cost	36	18.0
Safety of method	114	57.0
Spousal Approval	16	8.0
Availability of Method	33	16.5;
Others	1	0.5
Total	200	100.0
Did you discuss with your spouse The number of children to have		
Yes	23	11.5
No	177	88.5
Did you discuss birth spacing with Your spouse		
Yes	22	11.0
No	178	89.0

Source: Field survey, 2015

Table 4.3a above further exams respondents' family planning decision making and choice. As shown above, 77.5% of respondents do not have the opportunity to take decisions on family planning in their homes with 22.5% having the opportunity to take family planning decision. Also, about 74% indicated that they prefer modern to traditional family planning method with



57% citing safety of method as the reason their choice. About 8% indicated spousal approval as reason for their choice. It is further evident from the table that, 88.5% did not discuss with their spouse on the number of children they want to have in the marriage with just 11.5% stating that they have discussed with their spouses.

In an individual interview with Asana a 23 year old woman in Voggu in the Kumbungu district revealed the following:

I cannot discuss birth spacing and contraceptive use and practice with my husband. How will I start it? He will ask me series of questions. In this our community, discussing such issues with your husband can lead to divorce because the man will brand you as a bad woman. The local people think that contraceptive use and practice is solely for prostitute and those who are not married. How will a married woman use contraceptive? We marry because of children why then practice contraception? Source: (Asana a 23 year old woman).



Table 4.3b Knowledge on Contraceptives

Variable	Frequency (n)	Percentage (%)
No. of Children Respondent has		
1-3	145	72.5
4-6	51	25.5
7-8	4	2.0
Total	200	100.0
Whether current child was planned for		
Yes	25	12.5
No	175	87.5
Total	200	100.0
Birth Spacing		
1-2 years	195	97.5
1-4 years	2	1.0
Others	3	1.5
Total	200	1.5

Source: Field Survey, 2015

From table 4.2b above, 72.5% of respondents had between 1 - 3 children, while about 2% has between 7- 9. It is also clear from the table that 87.5% of respondents had not planned for their current babies they were carrying which means that couples are not adhering to any birth control measure as a means of controlling their family size. On birth spacing, 89% of respondents did not discuss birth spacing with their spouse with 11.0% having done so with their spouses as shown in the figure above.

During an interview with Mma Samata, a married woman with 8 children narrated as follows:



I did not plan before having my children. Children are gift from God. Why should I plan before having them? What if I plan and the time I want to have them God does not give me the opportunity? I give birth when the opportunity comes. For the first 2 children the interval between them was 3 years. It is so because per the Dagomba tradition, when a woman gives birth for the first time she goes to her family to help care for the baby and return to the husband's house after the child is about two and half years old. I did that to the first two children but the rest I did not because by then I had the experience.



4.4 Postnatal Care and Family Planning (Postpartum Family Planning)

Table 4.4a Postnatal care and family planning

Variable	Frequency (n)	Percentage (%)
Where Respondent first heard about postnatal care		
Through a friend	40	20.0
Through Relatives	21	10.5
During visit to health facility	135	67.5
Through mass media	3	1.5
Others	1	0.5
Total	200	100.0
When to start accessing postnatal Care after delivery		
Immediately after delivery	114	57.0
A week after delivery	67	33.5
Two weeks after delivery	11	5.5
Three weeks after delivery	3	1.5
Others	5	2.5
Total	200	100.0
Where Respondent first heard About family planning		
Through a friend	62	31.0
From a health worker	114	57.0
From mass media	20	10.0
Others	4	2.0
Total	200	100

Source: Field survey, 2016



As shown in table 4.4a above, 67.5% of respondents reported having first heard about postnatal care during visit to a health facility with 1.5% reported having heard through mass media. Also, 20% and 10.5% heard it through friends and relatives respectively. Also, 57% of respondents also reported accessing postnatal care immediately after delivery with 2.5% not knowing when to start. Also, 33.5% started accessing a week after delivery and 5.5% accessing two weeks after delivery. Furthermore, 57% of respondents first heard about family planning through health worker, with 31% hearing it through a friend. Furthermore, 10% heard it through mass media.

Furthermore, 37.5% of respondents reported starting family planning immediately after delivery which then suggests that they were given family planning counseling immediately after delivery and before discharge. All respondents sampled reported as currently breastfeeding their children and accessing postnatal care services.



Table 4.4b. Postnatal care and family planning

Variable	Frequency (n)	Percentage (%)
When to start practicing family Planning after delivery		
Immediately	75	37.50
After resumption of sexual intercourse	51	25.5
After resumption of menses	55	27.5
Others	19	9.5
Total	200	100.0
Counseling from TBA if home Delivered		
Yes	8	4.0
No	62	31.0
Others	130	65.5
Total	200	100.0
Counseling by Health worker after two Weeks of delivery		
Yes	104	52.0
No	96	48.0
Total	200	100.0
Recommended family planning Method for breastfeeding mothers	114	57.0
LAM	80	40.0
Condom	11	5.5
IUD	4	2.0
Abstinence	1	0.5
Others	21	10.5
None	83	41.5
Total	200	100

Source: Field survey, 2015



From table 4.4b, 25.5% reported practicing family planning after resumption of sexual intercourse with 27.5% practicing family planning after resumption of menses. Few respondents (4%) who delivered at home received family counseling from TBA, with 96% not receiving at all. 52% of respondents were counseled two weeks after delivery with 48% not counseled at all.

Furthermore, 40% of breastfeeding mothers had LAM recommended to them as family planning method with 5.5% having condom recommended to them. 2% had IUD recommended to them as well. Combined Oral Contraceptive (representing 42.5%) was recommended to them as family planning method after six months of delivery with Combined Injectibles (45% of respondents) recommended to some as well.

I always start postnatal care services immediately I give birth. I do that because my husband will always encourage me to do that immediately and sometimes he will pick me to the facility. Most of my fellow women are not doing it because they think is expensive but is free so the health professionals should help educating the women in the rural areas on the importance of this service. Adisa, 26 year old woman in Dalun in the Kumbungu district narrated.

In a personal discussion with Damata, a 34 year old woman in Voggu, reported the following:

I do not go for post natal services at the health facility because of the attitude of the health professionals. If you go there they will insult you, just because you don't have a new dress to put on. They think everybody has the opportunity to be changing dresses. The last time I went to the facility was during the partum era and a nurse in the facility insulted me that I was dirty. Since then I have vowed not to visit the facility anymore. The best is to resort to the TBA for counseling.



Table 4.4c. Postnatal care and family planning

Variable	Frequency (n)	Percentage (%)
Recommended family method After six weeks		
LAM	11	5.5
Condom	104	52.5
IUD	23	11.5
Abstinence	5	2.5
Others	12	6.0
None	45	22.5
Total	200	100.0
Recommended family method After six months		
Combined Oral Contraceptive	85	42.5
Combined Injectibles	90	45.0
Fertility awareness	14	7.0
None	11	5.5
Total	200	100.0
Education on LAM		
Yes	157	78.5
No	43	21.5
Total	200	100.0
Family planning education For spouse		
Yes	122	61.0
No	78	39.0
Total	200	100.0

Source: Field Survey, 2015



From table 4.4c it shows that LAM was recommended by health professionals to 5.5% of respondents who were breastfeeding mothers after six weeks of delivery.

Other methods recommended include Abstinence (2.5%), Condoms (52.5%) and IUD (11.5%). Also from the table, combined Injectables and combined oral contraceptive were the most recommended family planning methods for breast feeding mothers (respondents) after six months of delivery. However, 5.5% of mothers reported of no family planning method being recommended to them after six months of delivery.

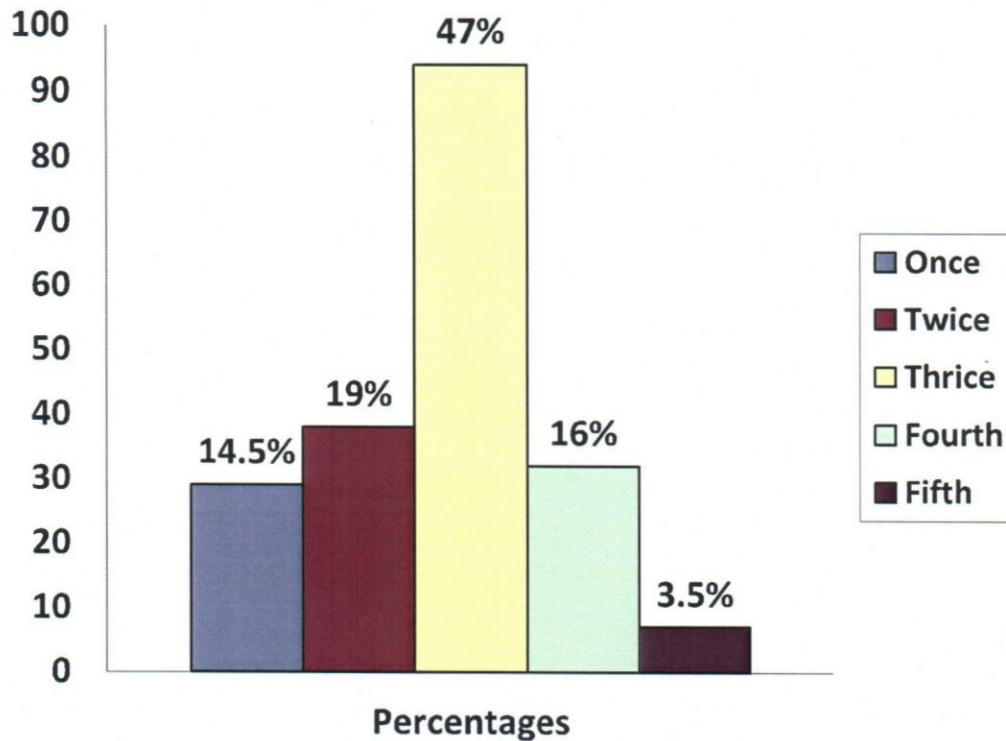
Furthermore, 42.5% of respondents reported that combined oral contraceptive was recommended to them after six months of delivery. Also 45% of respondents had combined injectibles recommended to them with fertility awareness recommended to 7%. Also 5.5% had no method recommended to them.

Also, 78.5% of respondents attested to the fact that they were given education on LAM anytime they go for antenatal care, as indicated on the table above. The table further indicated that 61% of respondents said their spouses were given counseling on family planning.

The attitude of health professionals to the delivery of healthcare influences access and utilization. as shown on table 4.4c above, a little over 10% rated postnatal health care providers as excellent in the attitude to delivery whiles 82.5% rated them as good.



Figure 4.4a: Number of postnatal visits made by respondent

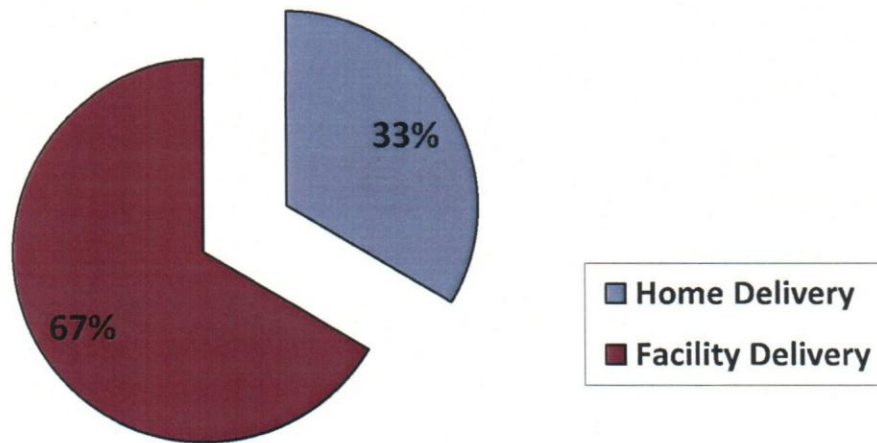


Source: Field Survey, 2015

The figure above show that 47% of respondents had made three visits to postnatal clinics to access services. Also, 19.0% and 14.9% made 2 and 1 visits respectively with 16.5% making 4 visits. Also 3.5% made five visits.



Figure 4.4b: Place of delivery of respondent's current child



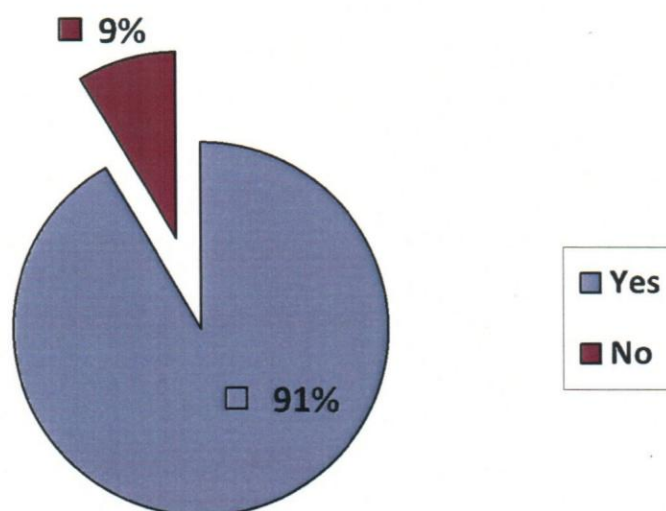
The figure above shows that 66.5% of respondents were delivered by health professional at health facilities while 33.5% were delivered by TBA at home.



4.5 Cultural and Customs Influence On Postnatal Services in the District.

Figure 4.5: Customs and traditional practices of Respondents

The Chart below indicates that there exist traditional customs and cultural practices in Kumbungu with regards to postnatal care.



Respondents mentioned among other things that they are made to sit on warm water for some time and also made to stay indoors for 40 days as some of the traditional practices pertaining to postnatal care. During my interaction with some of the women, they indicated that sitting on warm water allows the wound to heal fast and also helps them to gain their strength back on time



Table 4.5 Duration respondent's stay away from spouse after delivery

Duration	Frequency	Percent
21 days	1	.5
28 days	4	2.0
35 days	6	3.0
40 days	126	63.0
Others	63	31.5
Total	200	100.0

Source; Field Survey, 2015

From table 4.5 above, 63% of respondents indicated that they are made to stay away from their spouses after delivery for forty days. This, many respondents attributed to the fact that they can easily be pregnant when they continue to stay in the same room with their spouse after delivery. They further explained that is a common practice for women to always give in to their spouse's sexual demands any time they ask for it. As a result they agreed that the customs and cultural practices that exist in the district are very beneficial to both their social and health status.



4.6 Relationship between Variables

Table 4.6a: Effect of some selected socio-demographic and socio-cultural factors on contraceptive use

Socio-demographic and socio-cultural factors	Family planning (contraceptive use)			
	Odds Ratio	Confidence Interval		P-Value
Educational status	2.77	0.35	21.75	p>0.05
Occupational status	2.28	0.63	8.22	p>0.05
Religion (Christians/Moslems)	0.39	0.05	3.11	p>0.05
Respondents discussed with spouse on number of children to have	1.7	0.46	6.61	P>0.05
Respondents planned for a baby with spouse	2.03	0.53	7.77	p>0.05
Respondents discussed with spouse on birth spacing	1.85	0.49	7.02	p>0.05
Birth spacing (1-4 Yrs. / 5-8 Yrs.)	0.36	0.038	3.39	p>0.05

Source: Field Survey, 2015

It was discovered from table 4.2a that respondents preferred the use of modern contraception (74.0%) compared to traditional/natural methods (26.0%). Their predominant reasons for this preference were as follows; Safety of the method (114, 56.2%), cost (36, 18.0%), availability of the method (33, 16.5%) and spousal approval (16, 8.0%).



Thus use of modern contraception was adopted as the proxy variable for the assessment of contraceptive use among respondents. By age categories, contraceptive use is 17.6% 15-20 years old, 29.4% among 21-25 yr olds, 11.8% among 26-30 yr olds, 23.5% among 31-35 yr olds and 17.6% among respondents over 35 years.

Socio-demographic variables were compared on the basis of respondents' contraceptive use. The variables used were educational status of respondents, occupational status of respondents, Income level of respondents and religious affiliation of respondents using odds ratio as a measure of association. This statistic is defined as follows;

$$\text{Odds ratio, OR,} = \frac{\text{Odds of exposure to socio-demographic factor by those that use contraception}}{\text{Odds of exposure to socio-demographic factor by those that do not use contraception}}$$

On education, respondents with "at most primary school level education" were 2.77 times more likely to use contraceptives relative to respondents with "at least JHS education" (OR=2.77, 95% CI; 0.35-21.75, $p>0.05$). Also, the odds of contraceptive use among respondents with informal sector occupations was 2.28 times greater than the formal sector (OR=2.28, 95% CI; 0.63-8.22, $p>0.05$).

On income levels, contraceptive use is 82.4% among respondents with less than GHC100, 0.0% among GHC100-400 and 17.6% among those receiving more than GHC400. Thus the use of contraception is independent of purchasing power.

Furthermore, Christians mostly of orthodox extraction (Pentecost, Assembly of God, Presbyterian) were less likely to use contraceptives relative to Muslims (OR=0.39, 95% CI; 0.05-3.11, $p>0.05$).



Aside socio-demographic variables, socio-cultural factors can also influence family planning. Contraceptive use is adopted here as a proxy for family planning. The given socio-cultural factors are; whether respondent discussed with spouse on number of children or on birth spacing, parity of respondent, whether respondent planned for her recent baby and birth spacing of children.

There is a supportive environment created for contraceptive use when respondents discuss with spouse on number of children they should have, when respondents' planned for a baby or when they discuss with spouse on birth spacing of their children. On the former variable, contraceptive use was 1.7 times more likely among respondents who discussed with their spouse on child spacing (OR=1.7, 95% CI; 0.46-6.61, $p>0.05$). Also, contraceptive use was 2 times more likely among respondents who planned for their current child (OR=2.03, 95% CI; 0.53-7.77, $p>0.05$). Furthermore, the odds of contraceptive use among respondents who discussed with their spouse on birth spacing was 1.85 times greater than those who do not (OR=1.85, 95% CI; 0.49-7.02, $p>0.05$). However, none of these tests were statistically significant since p-value in most cases was greater than the margin of error (0.05).

On birth spacing, contraceptive use is less likely among respondents with 1-4 yr period child spacing compared to 5-8 yr spacing (OR=0.36, 95% CI; 0.038-3.39, $p>0.05$). In other words, family planning measures increases with longer periods of child spacing compared to shorter periods.

Also for respondents with 1-3 children, the contraceptive use is 58.8%. For 4-6 children, the contraceptive use is 35.3% and for those with 7-9 children, the contraceptive use is 5.9%. Conclusively, contraception decreases with increasing number of children a respondent have.



Further multinomial regression analysis test was carried out to find out the relationship between dependent and independent variables. The tested dependent variable were; period of start of family planning after delivery, use of contraceptive methods (both modern and traditional), ability of respondents' to make family planning decisions and choice of family planning methods. The independent variable used was counseling on family planning at post natal centers. The variables used are all nominal with two values, either "yes" or "no" among others.

Table 4.6b Relationship between family planning related variables and post natal session counseling on family planning

Postnatal session counseling	Family planning			
	Odds Ratio	Confidence Interval		P-Value
Knowledge on period of start of F.P after delivery	1.023	0.36	2.90	p>0.05
Usage of traditional F.P methods	1.86	0.23	15.33	p>0.05
Usage of modern contraceptives	0.59	0.07	4.89	p>0.05
Ability to make F.P decisions	1.80	0.48	6.68	p>0.05
Choice of F.P methods	2.28	0.79	6.57	p>0.05

Source: Field Survey, 2015

The odds of being counseled at Postnatal Service centres on F.P and use of modern contraception is low (OR=0.59, CI=95%; 0.071-4.89, P=0.625).

Furthermore, the odds of being counseled at PN centres and being able to take F.P decisions is greater than not being counseled at the PN centres (OR=1.80, CI=95%; 0.48-6.68, P>0.05)



It also came out that the odds of respondents being counseled on F.P at PN centres and choosing traditional method is greater compared to the modern contraception. (OR=2.28, CI=95%; 0.79-6.57, $P>0.5$).

In addition, the odds of being counseled on the period of start of F.P after delivery against whether counseling was given at PN centres is the same (OR=1.023, CI=95%; 0.36-2.9, $P=0.96$)

The odds of being counseled on F.P at PN centres and the use of traditional F.P are greater than the odds of being counseled and not using. However, the risk estimate is not significant. (OR=1.86, 95% CI; 0.23-15.33, $P=0.56$)

On a comparison between number of visits to post-partum postnatal services and modern contraceptive use revealed that; contraceptive use is less likely among respondents who made 1-2 visits relative to those who made 3 visits and above (OR= 1.44, 95% CI; 0.51-3.96, $p>0.05$).



CHAPTER FIVE

5.0 DISCUSSION OF FINDINGS

5.1 Introduction

This chapter basically discusses the results of the study with respect to the study variables and the objectives. It further investigates the predictive factors that influence postpartum family planning uptake in the Kumbungu district. Several factors such as socio-demographic, socio-cultural, quality of postnatal service, attitude of service providers and fertility issues have an influence in family planning acceptance and uptake.

5.2 Respondent's Socio-Demographic Background

This section focuses on the age, gender, marital status, educational status, religion, occupation and ethnicity of the respondents. The results of this study from the logistic regression analysis (Table 4.6a) suggest no strong association between postpartum family planning uptake and socio-demographic characteristics of women. The results show that 30% of respondents were between the ages of 26 -30 and 26% within 15- 20 years. This infers that most respondents were in their youthful ages and therefore factors such as postnatal depression influence postnatal care practices.

The age of postpartum women did not suggest any association with postpartum contraception Uptake. This is inconsistent with several studies such as Hong *et al.*, (2006) who found that woman's age and her number of living children were main factors in accepting a long term method like IUD *et al.*, (2011) and that age was strongly associated with contraceptive use while Leite *et al.*, (2011) reported that contraceptive abandonment was higher within the age group of 30-40 years compared with 20 -29 years age group. This difference observed in my study could



be due to differences in cultural and religious orientations. The study also revealed that 57% of respondents had no form of education, with less than 2% having secondary/ vocational education. Education is seen to influence many aspects of our lives and the fact that majority of respondents were with no formal education is indicative of social vices including the noncompliance to postnatal care protocols.

In this study, higher education correlates positively with postpartum contraception use in the bivariate analyses. The adjusted odds of postpartum women with higher education (AOR = 0.84) accepting contraceptive was 74% less likely compared with those with formal education. It means that the likelihood of postpartum women accepting FP method increases with increasing education. Though educated women might be misinformed about fear of side effects and health concerns, this does not affect acceptance of contraception. These findings are consistent with the (GSS/GHS/ICF Macro, 2009) as educated women were more likely to accept a contraceptive with higher education.

Romero-Gutiérrez (2003) had shown that women's level of education was significant in contraception acceptance while Yavinsky (2011), demonstrated that higher level of education was strongly associated with uptake of all categories of postpartum contraception. With regards to marital status, the study found that nearly all respondents were either married or living together with a partner.

Women illiteracy is one of the factors that affect the knowledge regarding contraception. Rozina (2008), showed that the knowledge for contraception was 81% as compared to 97.4% and 99% in studies conducted at Lahore.^{6,10} However, similar awareness rate of 82.2% was found in an Indian study.. Pakistan has low literacy rate, even lower in rural areas. This is also reflected in



the present study where illiteracy level was 90% in contrast to 78% in India and 62% in another study of same province. Literacy level among the women emphasizes the need for education as a key component to combat overpopulation and will encourage the use of contraceptives.

In this study, marital status was not associated with postpartum contraceptive uptake. This may be so because majority of the study participants were married. However, Dulli *et al.*, (2011) found that marital status was significantly associated with contraceptive use. Majority of the respondents were farmers as revealed by the study. This means that the relationship between farming, postnatal care service utilization and family planning uptake can be identified. The woman occupational status in this study showed a lack of association with postpartum contraceptive uptake. Consistent with Dulli *et al.*, (2011) findings that contraceptive use was not associated with work status. However, findings of this study are inconsistent with the (GSS/GHS/ICF Macro, 2009) findings which show that use of modern contraceptive methods increases with increased household wealth.

Income can have varied effects on all aspects of human lives including post natal care utilization in women. As depicted by the study, majority of respondents are poor, earning below GH¢100.00 a month. Postnatal care is low with less income due to the fact that transportation, feeding and other factors may be triggered.

The study also found out that majority of respondents' was Muslims. It is possible to investigate as to whether one's faith can have an influence on the utilization of health services, including postnatal care services. Religious affiliation was not associated with postpartum woman contraceptive use. Muslim women were less likely (AOR = 0.35) to accept a method as compared with Christians. Fundamental Muslims maintain that all form of contraception violates



God's law and intentions (Poston 2005). In sub-Saharan Africa, religious and ethnic beliefs and values have been reported to be some of the barriers to fertility decline in the region (Bertrand *et al.*, 1979; Caldwell 1987).

Other studies have shown that religious affiliations do not affect FP and that the differentials that occur across religious groups are as a result of the differences in the socio-economic and demographic characteristics within the groups (Addai, 1999a; Iyer, 2002). A study conducted in Cameroon and Senegal looking at the influence of religion on women's fertility decision demonstrated that religion influences women decision making including decisions on FP (Browne 2012). Majority of the respondents (64.3%) were Muslims and the use of a contraceptive method is entirely not the decision of a Muslim woman alone. The husband approval is very paramount. The Islamic doctrine seems to support as many children as one could possibly have in her life, a contradiction to the essence of contraception. Also, some side effects interfere with religious practices such as prolonged menstrual flow which hinders Muslim women from offering their daily prayers. This is congruent with Dulli *et al.*, (2011) that religion was not significantly associated with contraceptive use.

Ethnicity is also a factor that can influence one's attitude to so many issues, including seeking health care. The study show that, majority of respondents were Dagombas, representing 93.5%.

Past research has documented a mixed picture in regard to the influence of ethnicity on contraceptive use. Some studies have revealed ethnic differences in contraceptive use (Addai 1999b; Bertrand *et al.*, 1979). A study looking at ethnic differences in FP acceptance in rural Guatemala showed great variation in acceptance of FP across various ethnic groups (Bertrand *et al.* 1979).



In Ghana, ethnicity has been shown to be a determinant of contraceptive use among the Fante/other Akans ethnic group (Addai 1999b). However, the aforementioned study also showed that the contraceptive use differentials between other ethnic groups were a result of differences in socioeconomic and demographic characteristics of the individual women (Addai 1999b).

5.3 Postnatal Service Accessibility in the District

All respondents sampled reported as currently breastfeeding their children and accessing postnatal care services.

The present study revealed that majority of respondents (67.7%) first heard of postnatal care services during a visit to health facility. Though others reported of getting information on postnatal care through friends (20%), relatives (10.5%) and through the mass media (1.5%).

It was also clear from the study that majority of respondents believe postnatal care should start immediately after delivery. Others said it should rather be a week after delivery (33.5%), two weeks after delivery (5.5%), though some did not have an idea (2.5%).

The time it takes for a mother to access postnatal care services has an influence on general accessibility. About 12% of mothers reported of spending between 10 and 20 minutes at postnatal clinics and as much as 45% and 38% indicated that they used 20-40 minutes and 50-80 minutes to access postnatal care respectively.

Family planning service quality is an integral part of acceptance. Clients therefore have a right to receive high quality service with dignity. Assuring high quality of service by the provider can lead to enormous benefits for leveraging opportunities associated with uptake.



Quality of postnatal care has an influence on Accessibility. The report indicates that majority of respondents rated postnatal care services as good; while just 6.5% rated quality of postnatal care as fair supporting that of Nabila that most rural women patronize the activities of TBAs because of the attitude of the health professional at the health facilities in most hinterlands in Ghana.

5.4 Knowledge of Respondents on Postnatal Family Planning In Kumbungu District

The level of knowledge of nursing mothers on planning their families after birth is very important as this would keep them informed and provoke their utilization of the service. As stated earlier, before a woman can accept FP, she needs to know about it through information education and communication. Majority of respondents first heard of family planning from health personnel. Quite a number of respondents heard of family planning from friends (31%), from the mass media (10%) and others (2%).

It is most common to have nursing mothers, especially from rural areas receiving information about their health from health professionals and friends. This is in contrast to (GSS/GHS/ICF Macro, 2009) findings that exposure to family planning messages shows that, Six in ten women age 15–49 and 7 in 10 men age 15–49 have heard about family planning messages on the radio.

Information on when family planning should start after partum was also sought from respondents. This revealed that majority of respondents expressed the opinion that women should start family planning immediately after delivery. However, quite a number of respondents indicated that family planning should start after resumption of menses (27.5%) and others said it should be after resumption of sexual intercourse (25.5%). Knowing when postpartum family planning should start would go a long way to enhance the practice and also avoid unplanned/unwanted pregnancies.



On the number of postnatal visits a woman should make, this study found that majority of respondents had made three (3) visits for postnatal care services. However a few respondents made five (5) or more visits. This means that so many women are still not making the required number of postnatal visits in this area. As revealed by the study, majority of respondents delivered at health facilities (66.5%) by health care professionals, while the remaining (33.5%) delivered at home. It is also clear that majority of respondents who delivered at the facility received family planning counseling before discharge.

The place of delivery was not found to be a significant predictor of the use of modern contraception in the postpartum period. This finding contrasts with those of some similar research in Mexico, which reported that women who delivered in government or private facilities were more likely to use a contraceptive method postpartum than those who delivered at home (Barber 2007). Most respondents from the study reported that there was further counseling after two weeks of delivery by health workers, including midwives (50.5%) and TBA (1.5%). Respondents reported that LAM (52%) is the highest family planning method recommended for breastfeeding mothers (respondents) after six weeks of delivery.

Other methods recommended include Abstinence (6%), because women usually do not have a say when it comes to sexual intercourse with their partners, Condoms (11.5) and IUD (2.5%).

Choice of a contraceptive method plays a major role in postpartum FP acceptance. The study has shown that of the 67.7% postpartum women who accepted a method after delivery, most (71%) of them preferred injectables within the first year postpartum. The most prominent reasons for postpartum family planning acceptance in this survey was that respondents do not want any more children (74%), similar to Morhe & Ankobea (2011), who found that about 53% sought modern



contraception within 12 months postpartum and most chose injectables.

The intention to use family planning method in the future among non-users was relatively high (46%) within the district while a large percent (54%) plan not to rely on FP at all. The study further showed that the main reasons cited for contraceptive future non-acceptance were fears of side effects (38.8%), health concerns (17%) and religious prohibition (17%). UNFPA, (2012), found similar reasons for future FP non-use. In Libya, less than 3 percent of women with unmet need who were not intending to use a method reported religious prohibition as the main reason (UNFPA, 2012).

Majority of respondents (85%) attested to the fact that they were counseled during postnatal care that they could become pregnant before even menstruating. Most respondents (86%) also reported that they were told that with decreased breastfeeding, they risked getting pregnant during the first six months of birth. The above reports show that respondents duly received counseling on family planning/ contraception, especially those women who attended postnatal care services.

It is intriguing to note that family planning uptake at postpartum was associated with the reception of counseling at postnatal clinics. This infers that almost all respondents who received counseling were likely to take up contraception/ family planning method. Family planning information provision or discussion with client immediately after delivery while staying at the hospital is an important predictor of increased potential user uptake among postpartum women. This current study revealed that of the 83% postpartum women who discussed FP after delivery, 67.7% accepted a method in the first year postpartum. Out of this, 20% accepted a method within immediate postpartum while 47.7% accepted a method in the extended postpartum period. The



immediate postpartum FP acceptance may be attributed to fresh labour pains encountered during delivery and women would opt for contraception to avoid any immediate conception. Effective counseling could as well account for this result. Similar observations were made by (Vernon & Ricardo, 2008) which demonstrate a clear relationship between the degree to which women report being informed, counseled about, and offered methods during their hospital stay and the uptake of methods before discharge from the hospitals. The findings are however inconsistent with Access-FP (2008) that most women (94%) reported that they wanted to discuss family planning options with their providers but none accepted a method.

5.5 The Effects of Knowledge on Postnatal Care Family Planning In the Kumbungu District

Before a woman can accept FP, she needs to know about it through education and communication. The study revealed that 6 in 10 women had information about family planning through hospitals and clinics, about 5 in 10 women heard from the radio, television and newspapers while (2 in 10 women) was through friends and NGOs. This is because the few staff available used the numerous local FM radio stations to disseminate public health information in local languages effectively.

This is lower than (GSS/GHS/ICF Macro, 2009) findings that exposure to family planning messages shows that, Six in ten women age 15–49 and 7 in 10 men age 15–49 have heard family planning messages on the radio. As can be deduced from the findings, the study investigated the knowledge of respondents on traditional family planning methods they have heard off. Abstinence was the highest family planning method respondents have heard off. Whiles withdrawal and lactational amenorrhoea had moderate responses in its favor.



Respondents also reported of having used these family planning methods mentioned above more than the others. Some more respondents indicated they have used more than just one method. This is not different from a study conducted by Katelyn (2014), to unearth the Determinants of Family Planning Service Uptake and Use of Contraceptives among Postpartum Women in Rural Uganda.

It revealed that due to the fear of side effects, most Ugandan Rural women prefer the use of traditional family planning methods as compared with modern family planning methods. The current study also found that Injectables are the highest family planning method respondents have heard off, followed by oral pills and condom. The study also reveals that these methods mentioned above are also the methods frequently used by respondents.

5.6 Cultural Practices and Customs Influence On Postpartum Family Planning In The Kumbungu District

Although individual demographic and socio-economic status have an impact on their desire and ability to use a service, the cultural environment in which an individual lives exerts a strong influence on the extent to which these factors actually lead to service utilization. Gender roles, norms, which are deeply rooted in cultural norms, play a significant role in decision-making pertaining to family planning. In many cultures, the number, spacing and timing of children is determined by male partners. Women may need permission from their husband or household elders to seek health care, including family planning.

Therefore, even if women are equipped with knowledge about sexual and reproductive health rights and they have access to family planning services, they are unlikely to utilize such services if their sexual partner/husband and household elders do not approve or support them to do so.



A key postpartum practice amongst many cultures is household confinement of mothers and infants for a period ranging anything from a month up to 3 months in some cultures. Various reasons are cited for the confinement which include preventing the mother, who is perceived to be 'unclean' from polluting other people with the newborn from impure air that will lead to infections. PNC necessitates routine check-up every six days and six weeks post-delivery.

However, women who adhere to the cultural practice of postpartum household confinement may not be able to attend either routine check-up. Also, if women subscribe to the traditional health belief model, they will not see the necessity to attend PNC in the absence of illness. The implications are far reaching as the infant will also not be taken to a health care facility for immunizations. Traditional health practitioners, through traditional medicines and rituals, are responsible for protecting the infant from illnesses. Lactating women, as is the case with pregnant women, are also subjected to food restrictions, which often reduce the nutritional intake for pregnant women, thus rendering them vulnerable to malnutrition.

Breastfeeding is regarded as a key child survival strategy in resource-poor countries, as exclusive breastfeeding effectively reduces the incidence of diarrhoea, respiratory infections and allergies. However, very few women practice exclusive breastfeeding for six months, and instead introduce solids from as early as a few days after birth. Socio-cultural reasons cited for the introduction of supplementary foods before 6 months are mainly founded on the premise that breast milk is inadequate both in quantity and quality; negative perceptions about the content of breast milk; and symbolisms associated with female breasts.

This present study also revealed that most women are made to sit on hot water for the period of post-partum and this is partly responsible for the confinement. Majority of respondents indicated

that they are made to stay away from their husbands. Respondents also agreed that the customs and cultural practices that exist in the district are very beneficial to both their social and health status because staying away from their spouses allow their wounds to heal.

5.6.1 Decision Making With Regards To Contraceptives

It is expected that couples communication about number of children (fertility desire) would leverage opportunities for postpartum FP uptake. In this study, a lack of association was observed between couples' postpartum contraceptive use at all levels of analysis.

The study also revealed that majority of respondents do not have the opportunity to take decisions on family planning in their homes. This finding resonate that of Anarfi (2013) that women in most rural communities in the northern part of Ghana are not having the courage to discuss family planning issues with their spouse.

Preference for larger families is still a phenomenon in the study area. The proportion of postpartum women with 1-3 children was higher than those with more than 3 children. In other words women were more likely not to use a method if their fertility desire was not met. However, Loomba *et al.*, (2011) found that couples who discuss their desired number of children were more likely to use a contraceptive method compared with those who do not.

Kidane *et al.*, (2011) also, observed that, involvement in decisions about child was a statistically significant factor for better decision making power of women on the use of modern contraceptive methods.

Majority of respondents stated that they prefer modern family planning methods to the traditional ones. Their reasons include Safety, availability and cost. The study also revealed clearly that majority of respondents (87.5%) had not planned for their current babies they were carrying.



This is findings support that of Alhassan (2010) that the Dogomba tradition has its own traditional family planning system that help in birth spacing.

The findings presented in this study suggest that contraceptive use among postpartum women will significantly increase if more women use maternal health care services, especially for antenatal care and postnatal care. In addition to the documented benefits of antenatal care and postnatal check-ups on maternal and child health, they appear to also increase the use of postpartum family planning. We recommend that family planning services be fully integrated into maternal health care services.



CHAPTER SIX

6.0 CONCLUSION AND RECOMMENDATIONS

6.1 Introduction

This chapter presents summary of the research findings. Conclusion and recommendations were made to stakeholders and policy makers

6.2 Summary of Key Findings

From the study it came out that majority of respondents did not have the opportunity to take family planning decisions which goes to affect their family planning acceptance and usage. This was further evident in the fact that majority did not plan for their current child. This means that they are not adhering to birth control measures as a way of controlling their family size.

On birth spacing, majority did not discuss with their spouse, however, as number of living children increases, contraceptive usage also increases.

Education was also found to be contributor to family planning usage as there was increasing family planning usage with increased education. Even though most of them have received postnatal counseling on family planning, this did not reflect on their family planning usage.

Most of them also agreed that traditional postnatal care which is part of their customs and cultural practices was beneficial to them. Also, Muslims were more likely than Christians to use contraceptives but due to lack of empowerment, they are not able to take decisions on family planning.



6.3 Conclusion

The findings presented in this study suggest that contraceptive use among postpartum women will significantly increase if women use maternal health care services, especially antenatal care and postnatal care services. In addition to the documented benefits of antenatal care and postnatal check-ups on maternal and child health, there appears to be an increase in the use of post-partum family planning. The qualitative findings of the study supported that of Nabila (2010) that the attitude of health professional in the various health facilities serves as a demotivating factor for women to use health facilities in most rural areas in the north thereby making it difficult to attain the sustainable Goals 4 and 5.

6.4 Recommendations

The study makes the following recommendations in order to have effective and efficient use of postnatal care on family planning adoption without compromising the indicators set aside for the achievement of the sustainable development goals 4 and 5 and also to make postnatal care services and family planning as an important health and developmental issues in the Kumbungu district and beyond.

The study therefore suggested the following for policy formulation and for the attention of the various stakeholders in the health delivery system.

The study recommended that family planning services be fully integrated into maternal health care services. Women empowerment through education, increasing employment opportunities for women and young girls, establishing and supporting programs that will provide sustainable income generation for women would help to eliminate structural barriers to access to maternal healthcare caused by poverty and gender inequality, reduce maternal mortality in Ghana and



improve maternal and wellbeing of women.

Ghana health service through their community outreach programmes should intensify the education of family planning services and post natal care and let people know that the service is free.

Also the Ghana health service should educate their staff to approach the people with professionalism without compromising the poverty situation of the people by raining insults on them that might discourage them from attending health facilities.

Chiefs and opinion leaders in the district should educate people to demystify the notion that family planning issues are only discussed by prostitutes and the also they should educate spouse to discuss family planning issues in their various households.

Also, Family planning service providers should focus specifically on immediate postpartum contraception by providing education on fertility return behaviours, benefits of breastfeeding in preventing unintended pregnancies within the first six months postpartum and initiation of contraception before the return of menses or resumption of sexual activity as conception could precede return of menses after delivery.



REFERENCES

- Abdul karim G.Mairiga (2010). Sociocultural factors influencing decision-making related to fertility among the Kanuri tribe of north-eastern Nigeria,Vol 2, No 1
- Adanu RMK, Seffah JD, Hill AG, Darko R, Duda RB and Anarfi JF (2003).
Contraceptive Use
- Adebowale SA, Adedini SA, Ibisomi LD, Palamuleni ME (2014). Differential effect of wealth quintile on modern contraceptive use and fertility: evidence from Malawian women. BMC Womens Health. doi: 10.1186/1472-6874-14-40. [PMC free article][PubMed][Cross Ref]
- Adeyemo Adeyinka R , Oladipupo Asabi , Omisore Adedotun (2012). Knowledge and Practice of Contraception among Women of Reproductive Ages in South West, Nigeria ; The International Journal of Engineering And Science (IJES) ||Volume|| 1 ||Issue|| 2 ||Pages|| 70-76 ||2012|| ISSN: 2319 – 1813 ISBN: 2319 – 1805
www.theijes.com The IJES Page 70
- Adongo PB, Phillips JF, Binka FN (1998). The influence of traditional religion on fertility regulation among the Kassena-Nankana of northern Ghana. Stud FamPlann.; 29(1):23–40.
- Agyei WK and Migadde M. (1995); Demographic and sociocultural factors influencing contraceptive use in Uganda, Journal of Biosocial Science, Issue 1:47-60.





- Antony M. Wairagu (2004). Determinants of family planning option among women aged 15-24 years seeking postnatal care services in nairobi county, Kenya,
- Bender, W. and Smith, M (1997). Population, Food and Nutrition.
- Black A, Yang Q, Wen SW, Lalonde AB, Guilbert E and Fisher W (2009). Contraceptive Use Among Canadian Women of Reproductive Age: Results of a National Survey. *Women's Health* ; 627-640.
- Boerma JT, Bryce J, Kinfu Y, Axelson H, Victora CG (2008). Countdown Equity Analysis Group. Mind the gap: equity and trends in coverage of maternal, newborn, and child health services in 54 Countdown countries. *LANCET* 2008; 371: 1259-67 doi: 10.1016/S0140-6736(08)60560-7 pmid: 18406860
- Borda M and Winfrey W (2010). Postpartum Fertility and Contraception: An Analysis of Findings from 17 Countries USAID/ACCESS
FP.http://archive.k4health.org/system/files/PP%20FP%20analy%20final_0.pdf
by Women in Accra, Ghana: Results from the Accra Women's Health Survey.
- African
- C. NEILL EPPERSON, M.D (2015). Yale University School of Medicine, New Haven,
- Cates W, Abdool Karim Q, El-Sadr W, Haffner DW, Kalema-Zikusoka G (2010). Global development. Family planning and the millennium development goals. *Science*. 329: 1603-10.1126/science.1197080



Charles Westoff (2006). "New Estimates of Unmet Need and the Demand for Family Planning," DHS Comparative Reports 14.

Chi I-C, Robbins M, Balogh S (1992). The progestin-only oral contraceptive—its place in postpartum contraception. *Adv Contracept.* 8:93–103. doi: 10.1007/BF01849746. [PubMed] [Cross Ref]

Cleland J, Bernstein S, Ezah A (2006), Family Planning: the unfinished agenda, *LANCET SERIES, SEXUAL AND REPRODUCTIVE HEALTH*:368. Connecticut contraceptive use: unmet need for family

Crossette B (2005). Reproductive health and the millennium development goals: the missing link. *Stud Fam Plann.*, 36: 71-79. 10.1111/j.1728-4465.2005.00042.x

Curtis SL and Katherine N (1996). Contraceptive knowledge, use and sources. Demographic and Health Survey comparative studies No.19. Calverton, Maryland: International. Inc,

DaVanzo J et al. (2007). Effects of interpregnancy interval and outcome of the preceding pregnancy on pregnancy outcomes in Matlab; Bangladesh. *BJOG.* 114(9): 1079–1087.

Demott K, Bick D, Norman R et al. (2006). Routine postnatal care of recently delivered women and their babies. London: National Collaborating Centre for Primary Care and Royal College of General Practitioners.



- Donna Clifton, Toshiko Kaneda, and Lori Ashford (2008). Family Planning Worldwide Data Sheet (Washington, DC: Population Reference Bureau).
- Edelman DA, Goldsmith A, Shelton JD (1981). Postpartum contraception. *Int J Gynecol Obstet.* ;19:305–11. doi: 10.1016/0020-7292(81)90080-1. [PubMed] [Cross Ref]
- Eliason S, Baiden F, Quansah-Asare G, Graham-Hayfron Y, Bonsu D, Phillips J, Awusabo-Asare K. (2013). Factors influencing the intention of women in rural Ghana to adopt postpartum family planning, *Journal Reproductive Health*, 10:34. doi: 10.1186/1742-4755-10-34. Eliason et al. *Reproductive Health*).
- Els, B. K., Seni, C.P.K., Yugbare, Gichangi , G.M., Beatrice Crahay , Gilda, N. B. O., Foia, H.B., Lopes , S.M., Nambiar, T. C. and Temmerman (2015). Opportunities to improve postpartum care for mothers and infants: design of context-specific packages of postpartum interventions in rural districts in four sub-Saharan African countries. DOI 10.1186/s12884-015-0562-8
- Eric Zuehlke, September, Ross and Winfrey (2009). Reducing Unintended Pregnancy and Unsafely Performed Abortion Through Contraceptive Use; op. cit.
- Espey E, Ogburn T, Leeman L, Singh R, Ostrom K, Schrader R (2012). Effect of progestin vs. combined oral contraceptive pills on lactation: A double-blind randomized control trial. *Obstet s Gynecology*;119:5–13. doi: 10.1097/AOG.0b013e31823dc015. [PMC free article] [PubMed] [Cross Ref]



- Fort A, Kothari M and Abderrahim N. (2006). Postpartum Care: Levels and Determinants in Developing Countries. Calverton, Maryland, USA. Macro International, Inc.
- Ghana Statistical Service: Ghana Demographic and Health Survey Report (2008).
- Gillespie D, Ahmed S, Tsui A, Radloff S (2007). Unwanted fertility among the poor: an Global Health Learning Centre (USAID), October, (2007).
- Huntington D and Aplogan A. (1994). The integration of family planning and childhood immunization services in Togo. *Studies in Family Planning*. 25(3): 176–183.
- inequity? *BULL WORLD HEALTH ORGAN*; 85: 100-7
- Jackson E, Glasier A (2011). Return of ovulation and menses in postpartum, non-lactating women: a systematic review. *Obstet Gynecol* ;117:657--62.
- Jacqueline E. Darroch, Gilda Sedgh, and Haley Ball (2011). *Contraceptive Technologies: Responding to Women's Needs* .
- JASON BREMNER (2012). *POPULATION AND FOOD SECURITY: AFRICA'S CHALLENGE*. Population Reference Bureau. 1875 Connecticut Ave., NW Suite 520 Washington, DC 20009 USA
- Jones R. K. and Dreweke J (2011). Secondary education or higher, urban residence and discussion of FP with spouse
- Jones RK, Dreweke J (2011). *Countering Conventional Wisdom: New Evidence on Religion and Contraceptive Use*. New York: Guttmacher Institute; 2011.

Journal of Reproductive Health 2009; 13(1):123-134.

Kennedy KI (1996). Post-partum contraception. Baillieres Clin Obstet Gynaecol;10:25–41. doi: 10.1016/S0950-3552(96)80060-5. [PubMed] [Cross Ref]

Kumbungu District Health Directorate (2014). Annual Report; Kumbungu: Ghana Health

Levitt C, Shaw E, Wong S, Kaczorowski J, Springate R, Sellors J, et al (2004). Systematic review of the literature on postpartum care: selected contraception methods, postpartum Papanicolaou test, and rubella immunization. Birth. 31:203–12. doi: 10.1111/j.0730-7659.2004.00306.x. [PubMed][Cross Ref]

Martin E. Palamuleni (2013). African Journal of Reproductive Health September 2013; 17(3))

Mary Stewart Mb Bs, Dffp, Mph (Health Promotion), Kathleen Mcnameemb Bs, Fracgp, Dipven, Graddipebio, Mepi, Caroline Harvey Mb Bs(Hons), Fracgp, Dranzog, Mpm, Mph (2013). A Practical Guide to Contraception, Part 3.

Medicinetoday (2013); 14(9): 55-65, a Practical Guide to Contraception, Part 3

Mohammed A Al-Ateeq and Amal A Al-Rusaie (2015). Health education during antenatal care: the need for more

Ms Marian Kpakpah (1998). General Debate on National Experiences in Population matters; Fertility Reproductive Health and Development; 19 East 47th Street, New York, N.Y, 10017.





Mustapha Adelaja Lamina (2014). Prevalence of Abortion and Contraceptive Practice among Women Seeking Repeat Induced Abortion in Western Nigeria Journal of Pregnancy, Article ID 486203, 7 pages
planning. <http://www.un.org/esa/population/publications/wcu2009/metadata/umn.html>

Postpartum care of the mother and newborn: a practical guide WHO/RHT/MSM/98.3
Postpartum Family Planning, PROGRESS Research Findings and Next Steps.,
Washington, D.C.(2012).

Robey B, Rutstein SO and Morris L (1992). The Reproductive Revolution: New Survey Findings. Population Reports, Series M, Number 11.

Robinson W, Ross J (2007). THE GLOBAL FAMILY PLANNING REVOLUTION:
THREE DECADES OF POPULATION POLICIES AND PROGRAMS.
Washington: The World Bank; 2007. Available from:
<http://siteresources.worldbank.org/INTPRH/Resources/GlobalFamilyPlanningRevolution.pdf>[accessed 17 January 2011].

Ross J and Winfrey W. (2001). Contraceptive use, intention to use and unmet need during the extended postpartum period. International Family Planning Perspectives. 27(1): 20–27.

Ross J and Winfrey W. (2001). Contraceptive use, intention to use and unmet need during the extended postpartum period. International Family Planning Perspectives. 27(1): 20–27.



- Rozina Mustafa, Uzma Afreen and Haleema A. Hashmi (2008). Journal of the College of Physicians and Surgeons Pakistan. Contraceptive Knowledge, Attitude and Practice Among Rural Women Vol. 18 (9): 542-545
- Rutaremwu G, Kabagenyi A, Wandera SO, Jhamba T, Akiror E, Nviiri HL (2015). Predictors of modern contraceptive use during the postpartum period among women in Uganda: a population-based cross sectional study, BMC Public Health.;15:262.
- Saeed GA et al. (2008). Change in trend of contraceptive uptake—effect of educational leaflets and counseling. Contraception. 77(5): 377–381.
- Saeed GA et al. (2008). Change in trend of contraceptive uptake—effect of educational leaflets and counseling. Contraception. 77(5): 377–381.
- Samuel Mills, Ed Bos, and Emi Suzuki (2010). Unmet Need for Contraception (Washington, DC: World Bank.
- Sannisto T, Kosunen E (2009). Initiation of postpartum contraception: a survey among health centre physicians and nurses in Finland. Scand J Prim Health Care.;27:244–9. doi: 10.3109/02813430903234914. [PMC free article] [PubMed] [Cross Ref] Service.
- Shaaban OM, Glasierr A. (2008). Pregnancy during breastfeeding in rural Egypt. Contraception. 77(5):350–354.



Sileo KM, Wanyenze RK, Lule H, Kiene SM.(2015). Determinants of family planning service uptake and use of contraceptives among postpartum women in rural Uganda, *International Journal of Public Health.*, Issue (8):987-97.

Singh S et al. Guttmacher Institute and UNFPA (2009). *Adding It Up: The Costs and Benefits of Investing in Family Planning and Maternal and Newborn Health*. New York. Guttmacher Institute and UNFPA.

Singh S, Daroch JE, Ashford LS, Vlassoff M(2009). *Adding It Up: The Costs and Benefits of Investing in Family Planning and Maternal and Newborn Health*. New York: Guttmacher Institute and United Nations Population Fund.

Socio-Economic and Demographic Factors Affecting Contraceptive use in Malawi
Martin E. Palamuleni, North West University, Mafikeng Campus, Private Bag X2046, Mmabatho 2735, Republic of South Africa . E-mail: martin.palamuleni@nwu.ac.za; Phone: + 27 18 389 2502

Speidel J, Sinding S, Gillespie D, Maguire E, Neuse M(2009). *Making the Case for US*. In *International Family Planning Assistance*. Baltimore, Maryland: Johns Hopkins Bloomberg School of Public Health, Bill and Melinda Gates Institute for Population and Reproductive Health.

Stevie M. NANGENDO, Institute of Anthropology, Gender and African Studies, University of Nairobi, P.O Box 30197-00100, Nairobi, KENYA



Susheela Singh and Jacqueline Darroch(2012). Adding It Up: Costs and Benefits of Family Planning Services.

Susheela Singh et al. (2009). Adding It Up: The Costs and Benefits of Investing in Family Planning and Maternal and Newborn Health (New York: UNFPA and Guttmacher Institute.

Tankeyoon M, Dusitsin N, Chalapati S, Koetsawang S, Saibiang S, Sas M, et al (1984). Effects of hormonal contraceptives on milk volume and infant growth: WHO Special Programme of Research and Development and Research Training in Human Reproduction. Contraception. 1984;30:505–22. doi: 10.1016/0010-7824(84)90001-5. [PubMed] [Cross Ref]

The Partnership for Maternal, Newborn & Child Health. (2011). A Global Review of the Key Interventions Related to Reproductive, Maternal, Newborn and Child Health (Rmnch). Geneva, Switzerland: PMNCH

THE USAID | DELIVER PROJECT, TASK ORDER 1, AND PATHFINDER INTERNATIONAL, DECEMBER (2010). Contraceptive Security Brief Engaging Service Delivery Providers in Contraceptive Security.

The USAID | DELIVER PROJECT, Task Order 1, and Pathfinder International, December, (2010).

UN Population Division, World Population Prospects: The 2010 Revision

United Nations Population Division/DESA (2009). Fertility and Family Planning Section, world



USAID (2008a). ADDRESSING UNMET NEED FOR POSTPARTUM FAMILY PLANNING: THE ACCESS-FP PROGRAM, Newsbrief Apr, Washington, DC, USAID.

USAID (2008b). ACCESS-FP PROGRAMMATIC FRAMEWORK: POSTPARTUM FAMILY PLANNING IN AN INTEGRATED CONTEXT, Washington, DC: USAID.

http://www.accesstohealth.org/toolres/pdfs/ACCESSFP_pgmframework.pdf

USAID (2008c). POSTPARTUM FAMILY PLANNING: A REVIEW OF PROGRAMMATIC APPROACHES THROUGH THE FIRST YEAR OF POSTPARTUM-REPORT, 15 May, Washington, DC, USAID.

USAID.http://www.accesstohealth.org/toolres/pdfs/ACCESSFP_pgmframework.pdf

Vekemans M (1997). Postpartum contraception: The lactational amenorrhea method. *Eur J Contracept Reprod Heal Care.* 1997;2:105–11. doi: 10.3109/13625189709167463. [PubMed] [Cross Ref]

Warren C, Mwangi A, Oweya E, Kamunya R, Koskei N (2010). Safeguarding maternal and newborn health: improving the quality of postnatal care in Kenya. *Int J Qual Health Care.* 2010, 22: 24-30. 10.1093/intqhc/mzp050.

WHO (1998). Safe Motherhood; postpartum care of both mother and child, a practical guide; WHO/RHT/MSM/98.3

WHO(2006). *Report of a WHO Technical Consultation on Birth Spacing*, Geneva: 13-15 June 2005

World Health Organisation (2015). Family planning/contraceptive fact sheet, May, www.mayoClinic.com, Updated by Juniper Russo (2014).

Yetmgetayayou, YemaneBerhane, LegesseZerihun, Ethiop.J.Health Dev. (2004);18(3)



APPENDIX

APPENDIX 1: QUESTIONNAIRE

Interview guide for respondents

AN ASSESSMENT OF POSTNATAL CARE SERVICES ON FAMILY PLANNING IN YOUR DISTRICT.

SECTION "A"

SOCIO-DEMOGRAPHIC CHARACTERISTICS

1. Age of respondent.....
2. Educational Status
 - (1) Non – formal
 - (2) Primary
 - (3) Middle / JHS
 - (4) Secondary / SHS
 - (5) Vocational / Technical
 - (6) Tertiary
 - (7) Other (specify).....
3. Marital Status
 - (a) Single
 - (b) Married
 - (c) Divorced
 - (d) Widowed
 - (e) Separated
4. No. of children born:.....



5. No. of children living:.....

6. Occupation:.....

7. Income:.....

8. Religious Denomination

(a) Christianity

(b) Islam

(c) Traditional African Religion

(d) Other (specify).....

9. Ethnicity:.....

SECTION "B"

SOCIO-CULTURAL FACTORS INFLUENCING POSTNATAL CARE

10. Are there any customs / traditional practices with regards to care after delivery?

(a) Yes

(b) No

11. If yes can you please list them

.....

.....

.....

.....

.....

12. In your opinion, do you find them helpful?

(a) Yes



(b) No

13. Do you see any difficulty in the practice?

(a) Yes

(b) No

14. If yes in what way (s)

.....

.....

.....

.....

.....

15. Are you allowed to stay in the same room with your spouse after delivery?

(a) Yes

(b) No

16. If yes why?

.....

.....

.....

17. And if no why?

.....

.....

.....

18. For how long are you supposed to stay alone?

.....

.....

.....

.....

19. Can you tell me any other cultural practice women go through after delivery:

.....

.....

.....



.....

KNOWLEDGE ON CONTRACEPTION

20. Where did you first hear about family planning?

- (a) From a friend
- (b) From a health worker
- (c) From radio
- (d) From television
- (e) Others (please specify)

21. What family planning methods have you heard of?

- (a).....
- (b).....
- (c).....
- (d).....
- (e)

22. What family planning method are you currently using?

- a) Natural method
- b) Withdrawal method
- c) Intra uterine device (IUD)
- d) Implant
- e) Injectable
- f) Condom



g) Tubal ligation

h) Oral pills

i) Others (specify).....

23. What informed your choice of the family planning method?

(a) Cost

(b) Safety of the method

(c) Spousal approval

(d) Availability of the method

(e) Others (Please specify).....

24. Did you discuss with your spouse the number of children you want to have in this marriage?

(a) Yes

(b) No

25. If yes why:.....

26. If no why:.....

27. Did you discuss with your spouse birth spacing for your children?

(a) Yes

(b) No

28. If yes why:.....

29. If no why:.....

30. Can you as a woman take a decision on family planning use?

(a) Yes

(b) No

31. If yes why:.....

32. If no why:.....

33. Does your spouse approve of the use of a family planning method?



(a) Yes

(b) No

34. If yes why:.....

35. If no why:.....

SECTION "C"

KNOWLEDGE ON POSTNATAL CARE SERVICES

36. Where did you hear about postnatal care services?

(a) Through friends

(b) Through relatives

(c) During a visit to health institution

(d) Through the media

(e) Others (please specify).....

37. Place of delivery of last child before survey:

(a) Facility

(b) Home

38. If facility, were you given any counseling on family planning before discharge?

(a) Yes

(b) No

39. Were you told by the health worker that you can become pregnant even if your menses have not started?

(a) Yes

(b) No

40. Did the health worker discuss with your spouse about family planning within the first month of delivery?

(a) Yes



(b) No

41. Did the health worker tell you that your risk of pregnancy increases as breastfeeding decreases especially in the first six months of birth?

(a) Yes

(b) No

42. Did the health worker ask you whether you are still practicing LAM and if you would like to transition to another method?

(a) Yes

(b) no

43. When do you think nursing mothers should access postnatal care services

(a) Immediately after delivery

(b) A week after delivery

(c) Two weeks after delivery

(d) Three weeks after delivery

(e) Other (specify).....

44. How many visits is a nursing mother expected to make in the first twelve months of birth?

(a) 1

(b) 2

(c) 3

(d) 4

(e) 5

45. Did a health worker pay you a visit when you delivered?

(a) Yes

(b) No

46. If yes, how many times did he(s) visit?

(a) 1

(b) 2

(c) 3

(d) 4

(e) Other (specify)



47. Please list some of the things the health worker told you when he/she visited you?

.....

.....

.....

.....

48. What are some of the benefits of postnatal care in your opinion?

.....

.....

.....

.....

.....

49. How long does it take you to access postnatal services?:.....

50. How will you rate the quality of the services provided?

- (a) 1 –poor
- (b) 2 – fair
- (c) 3 -good
- (d) 4– excellent

51. Do you pay for postnatal services?

- (a) Yes
- (b) no

52. If yes, how much?.....

53. How will you rate the attitude of health workers when you go for postnatal services?

- (a) 1- Poor
- (b) 2- Fair



(c) 3- Good

(d) 4- excellent

54. What are the traditional practices of postnatal care services?

.....

.....

.....

.....

55. What role does the Traditional Birth Attendance play on postnatal care?

.....

.....

.....

.....

56. Comparing the Traditional and the Modern Postnatal care services, which one is more effective?

(a) Traditional postnatal care

(b) Modern postnatal care

57. And Why?

.....

.....

.....

.....

58. Please state if you have any more comments

.....

.....

.....

